

Myers, J. P.

1977


Alaska

Journal

Daily Lists

Transect Summaries

Vegetation



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NARL, Barrow, Alaska

27 May

arrived yesterday evening (2330) with Dick Erickson + Lynne Stengel aboard Great Northern Airlines, an electra flying in lieu of Wien Service. Wien Air Alaska is currently being struck by its pilots, adding one additional hassle to the difficulties of getting north this spring. Temperature on arrival in 20's, foggy with misty snow and ~~to~~ cold wind. No birds apparent by the airport, only hays hyperboreus seen en route to NARL.

The next morning I spent most of my time politicking, mostly w/ Gary Hansen - now the assistant Director for Science. Some good news emerged - as NARL feels that they will not be asking increased ~~charges~~ rates for users, at least until October. Birdwin saw a Spizella albona walking back from breakfast, Snow Buntings singing cheerily from telephone poles. No ~~western~~ calcanis.

1500 took a truck out to POW-MAIN, then into town + finally out to IBP. Few birds, much snow. But melt-off proceeding ~~slow~~ quickly with ~~slow~~ 35° weather, ~~no~~ sun and sun. H/L Polygons exposed in many places including Broken area, Beach ridge, POW-MAIN, the drum area, etc. With today's warming we seem to have received a significant influx today. Longspurs definitely moving in, a bevy of Golden Plovers. Ruddy Turnstones. See Daily List.

GRID 2, 3; TRANS 2, 4, 5

28 May

1000 went out with Dick after seeing Lynne off to Meade River. We went to transects 5, 2 and 4 to sample. see transect account. Only amazing things ^{were} the flies, large house fly like bracts sitting cold on the tundra surface. Obviously alive, in fact a few were buzzing about. Weather: chips in high 20's to low 30's. light N wind shifting to west. Overcast at first but fog thinning as morning

JPHyers
1976

Journal

Transsects 2, 4, 5 Barrow, Alaska

28 May
(cont'd)

progressed. Snow cover near 100% in all units, with greatest melt off by the road at tran 5. See daily list, transect account.

TRANSECTS 1, 3, 6-10

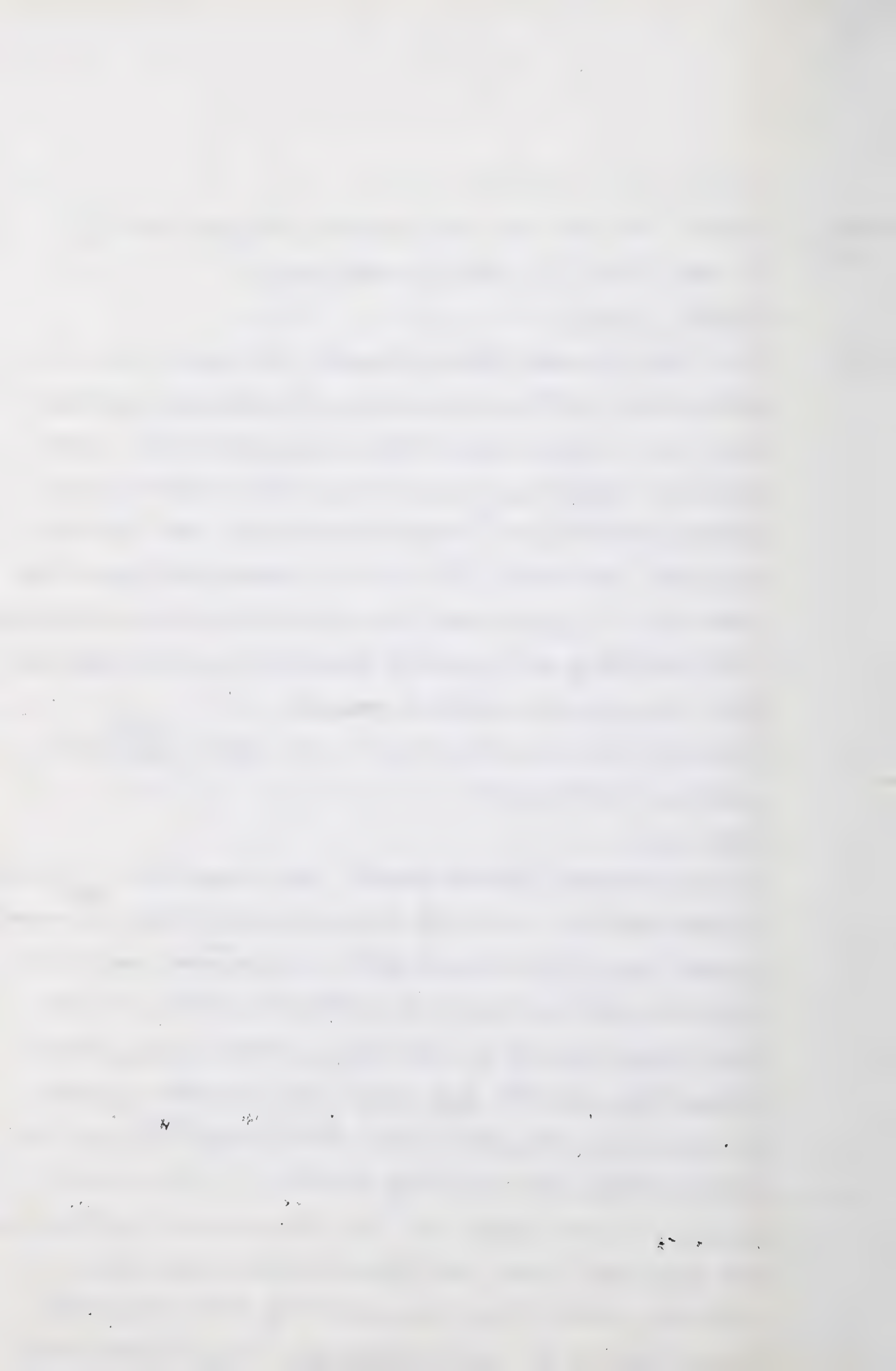
29 May

out at 0900 to sample remaining transects. 25°, no wind, glorious blue sky day w/ a high ~25% cloud cover. Began well w/ displaying Pluvialis near Tran 6 and a C. bairdii flying overhead. Heavy eider movement apparent. 2 flocks of C. melanotos seen later in morning, totaling ~35 ♂♂. Calcarius displaying prominently, one ♂ carrying nesting material. Most Pketrophenax seen paired. Snow cover still 95-100% everywhere but exposed ridges + near road. C. pusilla present along Gasline road when we came in at 1150 5 ♂♂ motorboating quite prominently. They definitely were not present at 0845. No shorebirds recorded on transects.

p.m. returned to Gasline Road at 1400 - found flock of 12 ^{Calidris} alpina behaving flightily as if they'd just arrived.

GRIDS 1, 2, 3

See map for position of grids and transects. A.M. DE and I went to G1 and G2 to measure snow cover. A decidedly cooler morning than yesterday, ^{although} not so much in absolute terms (25°F) as in wind chill - A 10 mph ^{NE} wind combined with high clouds made it cool out on the tundra this morning. The birds agreed - dunlin were still in a small flock, no pectoral display ~~at~~ even though there were 2 ♂♂. Pusilla calmed down from yesterday afternoon but a few bairdii songs could be heard. About the only ^{shorebird} species going full tilt are Golden Plovers and Ruddy Turnstones. The latter I would expect, but the GP's surprise me: First there are more here now than any time during the last 2 years. Second, they are displaying conspicuously + continuously. At least 8 pairs ~~open~~ are establishing between Beach ridge on Gasline Road and the E end of Gasline Ridge. During the afternoon I went



NUNUK

of Barrow
N. Plan

H
D
K
C
H
I

Brant Point

North
Salt Lagoon

23

Inukpak
Lake

Naval Arctic
Research Laboratory

Middle
Salt Lagoon

28

South
Salt Lagoon

29

North
Magoon

32

T5
G2
T5
G1

T3
G4
T3
G4

T6
G3
T6
G3

T2

Wiley Post - Will Rogers
Memorial Airport

Browerville

Barrow

APPROXIMATE LOCATIONS
OF GRIDS 1-4 AND
TRANSECTS 1-10.

WINTER TRAIL

WINTER TRAIL

WINTER TRAIL

WINTER TRAIL

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JPM Myers
1977

Journal

GRIDS 1, 2, 3, 4, Barrow, Alaska

30 May
(cont'd)

to grids 3+4 for more snow work. The character of the day had changed partially, as the cloud cover left. But still windy and below freezing. some puffins displaying and at least 1 apparent pair by Voth Creek. As in the a.m. much Golden Plover activity. But the coup was a berry (4) of Buff-breasted Sandpipers displaying on GRID 3. see apparent. All 4 grids were largely snow covered, with very few units (<10) having a snow cover under 90%. Came in at 1600. By 1800 it began to RAIN! did so for ~1/2 hr, never a heavy cloud burst but much more than the usual drizzle. The arctic tries to keep us on our toes.

Atkasook, Meade River, North Slope Borough, Alaska

31 May

Meade River - al fin! Flew in this p.m. at ~1730 after a pleasant but somewhat foggy 30 min jaunt via Cessna from NARL. Just as we came upon the Meade the areal extent of snow cover decreased rapidly, both around the bluffs and back away from the river on ridges. Otherwise the tundra was 90-100% snow covered. Here in many places it is considerable ice, & with some ridges up to 100% free. Birdwise it is far advanced from Barrow: melanotos hooting everywhere w/ ♀ mel. acting as if they come off nests; one C. lap. with a complete nest cup. All spp. displaying to the hilt, save Yellow Wagtail which Lyne Stengel says came in this a.m. Ptarmigan are absurd, sounding a bit like pheasants crossed with a Mormyridae. Willow Pt. molt far advanced compared to Rock (of which there are few. Lyne + I walked from ~1930 to 2400 south toward (15, 34) [see map of Meade w/ grid system] along largely cleared ridges. Caribou present, their grazing sign obvious in scattered places. ♂ Lagopus l. perched on top of mounds everywhere, occasionally indulging in flight displays. ♂ Pluvialis of both spp. busily fighting continuously. But the most remarkable thing to me is the density of

for (x, y) coordinates see gridded map
of ATKASOOK region, Journal p —

⬇CP = LOW CENTER POLYGON

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Journal

Atkasook, Meade River, N. Slope Borough, Alaska

31 May

C. melanotos in all habitats save exposed lichen ridges. They are especially prominent in low center polygons.

1 June

Walked from 10 am to 1930 w/ Lynne Stengal, going from camp (11, 40)^{east} ~~off~~ [see map] to (28, 42), then south along the river to (19, 36) and finally back to camp. A glorious sunny day through the morning and on to mid afternoon, with temps ~40°. High clouds from ~1430 to ~~1830~~ 1830, and then sunny for the remainder. A light NE wind.

We traversed a range of habitats, beginning with the bluffs by the river + camp spotted w/ Salix spp. The trees, although giants by Barrow standards, are rarely over 1m. high, scrubby, & and as yet lacking leaves. Catkins from one sp. (S. lanata) are woolly spread beneath the branches. A few Zono. leucophrys, Acant. sp., ^{and} Motacilla flava ~~are~~ all using these habitats. All are in various stages of display. Walking east we continued along the river bluff until reaching (15, 39) an area which Lynne calls Ground Squirrel Pt. from the abundance of Spermophilus. Traveling due east from there we entered a region of low wet tundra still largely covered w/ snow but populated by melanotos, pusilla, and mauri. The low center polygons in this area and particularly to the south from our path are more similar to Barrow habitats along transect 3 than many other LCP areas at Meade. Here the rim ~~vegetation~~ is higher + has a dryer vegetation type on top than the low Barrow LCP rims. Vertical relief in these can regularly be over ~~30cm~~ 30cm. But in this area they are lower, up to 20 cm or so, and the vegetation is similar to flat appearing on higher Barrow LCP rims. Centers are often Carex - Eriophorum r., as at Barrow. This zone stretches as far as X=24, and also has a series of Carex - Arctophila lined lakes. The easternmost ones are far advanced in melt and were decorated by many ~~(see map)~~ Ph. follicarius (>20) Ph. follicarius (see ~~map~~ sp. account). Immediately upon passing beyond the last of the lakes we hit a new vegetation + landform type; the terrain becomes

JP Myers
1976

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

1 June
(cont'd)

Much weaker polygonization, with shallow meandering troughs < 20 cm, and an overall rolling slope. Veg. upland tundra, Carex, Salix pulchra, Racomitrium dry tundra ridge w/ higher areas of Alectonia + Dryas integrifolia. Pluvialis squatarola country. Sitting on an abandoned squirrel mound covered by Elymus, Artemisia and others we watched a mob of Ph. fulvicastris ♀♀ pommel one another over a ♂ (see sp account). Shortly after rising we continued east + immediately found a Tryngites lek (see sp account). Up to 15 birds on a dry ridge, veg. heightlets up to 15 cm (old grasses) - much more substantial veg. than I imagined I'd ever find a Tryngites in. We watched for ~1 hr + then continued west, passing quickly into sand dunes w/ occasional Salix laeta - Elymus stands and even less frequent wet ponds lined w/ Carex or Eriophorum. Dunes are ~~about~~ ^{200 m} wide; we saw 2 birds in them, a pair of P. dominica beside one of the marsh areas. We hit the river near (28, 39) and walked across. It is less than 1 m deep at this point, and the shores are cobbled. A large willow-lined ravine ^{20 meter bank} lay on the other side - we climbed up for the view and were surprised to see how retarded melt-off is on the WE side. After a moments reflection it seemed apparent that the different phenology was due to prevailing winds depositing ~~the~~ dust + sand from the eroding river banks onto the snow downwind, which here lies to the SW. One ERMINE moving back + forth within a matrix of unused ground squirrel holes at the top of the bank. At ~1530 we began walking SW around the loop, + then cut inland at (27, 39) but were stopped immediately after getting through the sand dunes by more Tryngites activity; apparently the lek extends for ~750 m Ws ~~from~~ including map units (25, 41) → (26, 39). Lagopus mutus in the dunes nearby. After watching for another hour we again began to trek back, heading W along the river to (19, 36). Part of the river edge here are knased, alternating between large stands of Salix glauca (~40 cm high) with no birds and a wet Carex-Eriophorum angustifolium

SP Myers
1977

Journal

1 June
(cont'd)

Atkasook, Meade River, N. Slope Borough, Alaska

meadow w/ hooting P. melanotos (and a ♀), a few displaying Calcarius, and a singing Passerculus. After leaving the river we passed through a gorgeous mosaic of ponds, low low center polygons. Rims are mounded, up to 30-40 cm, narrow, and covered w/ the Ledum & Vaccinium, Salix pulchra association so common to music sites here. Centers largely Carex-Eriophorum russicum. Much bird activity compared to the dryer ridges, w/ displaying melanotos, pusilla, mauri, fulicarius, a few Ph. lobatus flying by. Definitely related to Barrow habitats save the ericaceous nature of rim vegetation. My one major puzzle from the walk concerns alpinus - there are few of them, scattered, ~~usually~~ in various places with their low numbers preventing any clear pattern from emerging in hab. use.

PROVISIONAL

Table ~~Area~~ of Habitats - modified from Webber veg map ~~AAA~~

hab	birds			
sand dune	<u>P. dominica</u> (1 pair)			
lichen ridge	<u>Pluvialis</u> spp. <u>Lagopus mutus</u>	<u>Arcaea</u> ? <u>Calcarius</u>		
snow bank	snow covered			
upland Tundra	both <u>Pluvialis</u> spp. <u>Tryngites</u>	<u>C. melanotos</u> <u>C. alpina</u> ?	<u>C. mauri</u> <u>C. pusilla</u> <u>Calcarius</u>	<u>Lagopus l.</u>
HCP	both <u>Pluvialis</u> spp.	<u>C. melanotos</u> <u>C. alpina</u> ?	<u>C. mauri</u> <u>C. pusilla</u> <u>Calcarius</u>	<u>Lagopus l.</u>
LCP	<u>C. melanotos</u> <u>C. mauri</u>	<u>C. pusilla</u> <u>Ph. fulicarius</u>	<u>Limnodromus</u> <u>Calcarius</u>	<u>Lagopus l.</u>
<u>Salix</u> - <u>Carex</u> streamside	<u>Zonotrichia leucophrys</u> <u>Acanthis</u> sp are <u>Motacilla flava</u> <u>Calcarius</u>			

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1977

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

1 June
(cont'd)

Carex marsh

C. melanotos

Limnodromus

§

Pareureolus sandwichensis

Carex - Aristophila

not melted yet

Flocks of several spp are moving through the area. Most pronounced are Pomarine Jaegers - during early evening we saw several (4-5) large flocks numbering up to 25 pomarines / flock. All are moving unwaveringly to NE. Anser albifrons and Anas acuta also migrating. The most obvious other migrant still moving in number are pectorals - regularly throughout the day small flocks numbering up to 25 birds fly by in a NE direction. Other birds are cruising about w/o quite so consistent a vector - dunlin are moving large local distances, Adelphi, fulicarius, ^{tobatus}, Longspurs.

2 June

Worked all afternoon on transects, not returning to camp until 2245. Both LS and I were barely able to put together 4 words in a coherent sequence that night. Such is life on the Meade. We put in transects 1-5, located to the West and SW from camp (see approximate location on map). Brief descriptions: TRAN ① begins in sloping low center polygons immediately west of camp. After ~300 m it enters a stream gully bordered by Salix pulchra / Carex and follows the stream up to where the stream drains from a lake. T1 then cuts north into more LCP area, then again W out into upland tundra. Most of the transect is either LCP or streamside willow. T② begins on a lichen ridge, following that for 150 m before running on to upland tundra + mixed polygons w/ Carex and low S. pulchra / Betula. It then cuts SW through upland tundra, crosses a path of lichen tundra, and then continues through upland, making one more crook to avoid a large lake. T③ is straight (!), beginning in string bogs of Carex and then cutting across a mosaic of low wet tundras until ~ station 12, where it goes on to upland tundra. T④ is also straight, heading east across a small patch of lichen tundra, a large low Carex marsh, and then out onto upland tundra and finally LCP's. T⑤ follows a lichen ridge, w/ much crookedness.

JP Myers
1977

Journal

Atkasook, Meade River, North Slope Borough, Alaska

3 June

1100 to 2000 laying transects, today out in the Eastern Loop (see map). We began by re-adjusting ⑤, extending it further south along the ridge and cutting off some ugly meanderings by Squirrel Pt. (16, 38). Then we put in 6-10, going along the route indicated on the map. Weather was brisk, in the high 30°s with a steady 20 mph ENE wind. But a brilliant sun made it tolerable. Only 1 new sp seen today, 2 Sabine's Gulls flying over to the east. This evening we were not out as late as in past nights, ~~and~~ and perhaps as a result the earlier migration of jaegers and pectoral sandpipers was not so apparent. I had meant to comment on its proportions in yesterday's journal to re-emphasize (after 1 June) how obvious it is. Well over 100 Pomarine Jaegers went by the evening of 2 June, and 210 flocks of 6-15 ♀ pectorals also, flying low over the tundra, headed east. The jaegers are obviously cutting across the base of Pt Barrow, heading overland. But the Pecto? - where are they coming from? Why are they so low? Transect descriptions: ⑥ cuts across low Carex marsh, Carex strips, and then into a low-center polygon system with Salix pulchra, Carex, etc on the rims. ⑦ begins in a Salix lanata streamside terrace, goes through Carex marsh, up over a snowbank also, ^{sandy} squirrel mounds and then along the bluff in a LCP system. ⑧ starts in Flat polygons (and mixed) and then enters lichen tundra and wet lichen heath. midway through it jogs north into more wet lichen tundra and then upland Carex-Salix pulchra Racomitrium tundra with much Poa. (goes through Tringitis country. ⑨ Begins in a wet Carex marsh and heads up over ~~water~~ a ridge of Carex-Salix pulchra Racomitrium, then into a ponded mosaic of ~~po~~ English LCP's. ⑩ begins in wet Carex marsh, goes up over a ridge of upland tundra and LCP, and then enters a gorgeous expanse of low LCP's.

4 June

Another (the last) transect placing day, this time 4. We began mid morning and continued till 1700. Then after a 2hr stretch helping RARE invaders (5 people arrived) we returned to ⑩ transect 10 to lay a breeding bird plot (1 km x 250 m), using tran 10 as a ~~frame~~ frame. The day was pleasant till ~2000 when a fog blew over. Temperatures were in 40's, a

JPMyers
1978

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

4 June
(cont'd)

steady 15mph wind, and mostly solid sun. During the last 3 days melt off has cleared most of the tundra: from >75% overall (with bare ridges) to <10% overall. ~~Run~~ Runoff considerable, but the river has yet to melt. Large lakes still all frozen - e.g. #9, 28) but with substantially cleared margins or at least ponding along the edges. Melting of other ponds quite inconsistent - some are melted entirely w/ even an inch or so of muck on the bottom compared to others we still walk across. Intermediate sized lakes show similar ~~variation~~ variation. But there is enough clear water so that Pintails, Oldsquaw, and white-front geese have separated + paired. Many pintails act as if they have nests already (we found one nest with an egg yesterday). Oldsquaw are not on nests yet. ~~Today~~ King Eider began flying around this evening (3 separate pairs), 2 separate groups of Arctic Loons, and fairly continuous displaying by Gavia adamsii. ~~Also~~ ^{today's} ~~transits~~ transits are much unusually easy to put in, and STRAIGHT! #11 - begins in ~~string bog~~ upland tundra it quickly plunges down ~~and~~ a ridge, runs through 200m of Carex marsh, string bogs, and Arctophila ponds, and then back into higher ground, LCP's and finally Elymus sand dunes. #12 ~~a~~ again starts on a ridge, gets into ~~an~~ short patch of lichen tundra, and then ~~goes~~ passes through a long stretch of upland LCP. It ends by plunging off a ridge into a lake basin bordered by Carex marsh. #13 is largely in Carex Marsh and Arctophila lake margin, before running up into a flat polygon area. #14 Begins in a low area w/ string ~~of~~ Carex and mounds, ~~goes to~~ quickly enters upland tundra and low center polygon, ~~and~~ heads down a terraced LCP ridge, and then ends in string bogs beside a lake. See Map. GRID 4 was placed around T10 (see map) w/ the transect line serving to define y=1 of a 250m x 1000m (25ha) census plot. Most of it is LCP, but it varies from string bogs to ~~some~~ a slight ridge with HCP's. Certain nesting species: Anas acuta, Clangula hyemalis, ~~but~~ Pluvialis squatarola, Calidris melanotos, C. mauri, Calpeia, C. psilla, Limnodromus s., Lagopus l., Calcarius lap., Passerculus sandwichensis. Also possible - Gavia arctica, Gavia stellata, Stercorarius pom, para, longi. How does the habitat differ here from Barrow? : ¹ Farther w/ River (buffs etc there is considerably more relief. 2) Sand from river bed causes wider variation in

J.P. Miller
1977

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

4 June
(cont'd)

soil conditions. This makes for different vegetation. Particularly evident in river basin and along bluffs where there are sand dunes (e.g. w/ *Elymus* and *Salix glauca*). And also w/ more subtle effects as in the vegetation in Palagonia (the far end of the loop [(25,40) region]). This vegetation differs from other upland tundra, lacking *Eriophorum vaginatum*, instead having a cover of wet lichen, *Carex*, *Poa* (thin), *Cassiope*. The *Poa* (thin but up to 10 cm high) gives the place a ragged look. Occasional patches of *Salix pulchra* stands also. (3) many more woody species, with much more substance to the plants. Not only are there 4 spp of *Salix*, as well as a *Betula*, but in some places the forest is extensive: ~~1-20~~ up to 1 meter high and ~~can~~ a thicket, spread over a ha. or more. Thickest on river terraces, but also in low wet areas along streams or near lake edges, especially where the lake is drained by a stream. *Betula* is widespread too, growing on LCP rims, as well as stream sides. (4) Finally, Barrow lacks the extensive development of LCP's that are here — here they are much better defined, with high (30 cm) rims and broad shallow centers. The contrast between rim + center vegetation is probably stronger here than at Barrow. (5) Less *Arctophila fulva* ponds — most ponds which would be A.f. lined at Barrow are instead *Carex aquatilis*. The *Carex* grows deeper here, and the A.f., when it does exist, is deeper also. This may have to do with the longer and warmer growing season here. I'll bet A.f. is displaced by *Carex* into deeper water here to a point where growing seasons are comparable to the A.f. season at Barrow. My hyp. is that its distribution here is in ponds which melt later and are deeper.

5 June

1100-1700 ran transects 1-4, 14 while ALS did 5, 11, 12, 13. Day began w/ rain + cold (dropped below 32°F in early morning). By 1400 clearing so that by 1800 (LS + I went out to finish pulling in ~~transsect~~ breeding bird plot 1800-2200.) it was absolutely gorgeous — no wind, no clouds, warm. A fog bank held persistently on the horizon, embracing (shrouding?) Barrow almost in to pall. The transects went reasonably well, averaging 1 hr apiece as they should. I must admit however that *Eriophorum vaginatum* tussocks make life

JP Myers
1977

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

5 June
(cont'd)

and censusing more difficult than Barrow tundra. One remarkable overall ~~observation~~ impression is the patchy distribution of birds along the transects, even w/o habitat patchiness. Some areas have a lot of birds, others don't. A significant fraction of this can be partitioned to habitat distributions, with fewer birds in upland tundra. But even in that habitat the birds are clumped. I will be interested to see how intensity of use through the season varies in different units. MELT-OFF \Rightarrow largely complete, with snow cover extensive only in snow banks. Last night's + this a.m.'s rain certainly hurried the process. A few flying insects are about, dipterans, hymenoptera, moths, and there are also Collembolids on pond surfaces. A few aquatic insects beginning to be visible in the water. The following annotated spp list summarizes bird observations here during 31 May \rightarrow 5 June.

Gavia adamsii - 1st seen 1 June flying over. Regular 2 June. Displaying in air + calling by 4 June. 5 June paired on large lake at (9,28)

Gavia archia - 1st seen 4 June flying by in flock of 4. Seen 5 June flying over

Anser albifrons - flocks seen 31 May and through to 5 June. some obviously paired on 1 June.

Branta ^{vernula} nigricans - 2 flocks totaling 25 seen 1 and 5 June

Anas acuta - flocks and pairs seen 31 May. Nest w/ 1 egg found 3 June. obvious nesting & common by 5 June but small flocks still apparent. common.

Anas platyrhynchos - 1st seen 2 June (1 ♂). single pair seen 3 and 5 June.

Anas crecca carolinensis - flock of 6 seen 4 June flying over

Anas spatulata ♂ + ♀ seen flying over 5 June

Clangula hyemalis 1 flock heard 31 May. Few heard 1 June but a few pairs evident by 2 June 4 and 5 June paired in many pairs. overflights continue

Somateria spectabilis pairs seen flying by 4 June. 5 June a few seen landing.

Somateria ~~sp~~ mollissima 5 individuals seen flying by 5 June

Somateria fischeri - 1 pair seen 5 June. 16 flying low 6 June - 8 ♂ 8 ♀ paired

Aythya marila - ^{pair} ~~seen~~ ~~seen~~ ~~seen~~ single pairs seen 1 and 2 June

~~Falco~~ Falco rusticola - 1 seen on bluffs 6 June

JPMYers
1978

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

5 June
(cont'd)

Lagopus lagopus abundant 31 May. ♂♂ molted to neck. ♀♀ more extensively. Some ♂♂ fighting. ♂ displays constantly (flying up + sailing down w/ tail spread, calling). By 3 June convinced that ♀♀ have nests but unable to locate any. ♂ stays very close to ♀, acts as decoy - in most habitats. Common

Lagopus mutus. evident 31 May but uncommon compared to L. lagopus restricted to sand dunes, higher bluffs + ridges. ♂♂ not begun molt. ♀♀ well along ♂ displaying 31 May - 5 June. common

P. squatarola displaying actively 31 May. much chasing. paired by that date. widespread habitat use but prefers higher ground, I think. Heavy overlap w/ P. squatarola (see below). By 5 June pairs behaving as w/ nest. common

P. squatarola - intense display actively 31 May - 5 June. much chasing, buffer fly flight. strong ant distraction display 5 June. (rowing motion by ♂). Definitely prefers higher ridges + bluffs but also seen in low areas (maybe only those w/ ridges nearby?) common

Arenaria interpres - displaying + chasing actively by 31 May near camp and a few other sites. But not seen 5 June, uncommon 4 June. they may have moved on. RARE (<10/day) 6 June 1 seen in ~~the~~ probably ^{ant distraction on} ^{low ridge (wet} ^{lichen tundra)}

Calidris melanotos - ♂♂ hooking when I stepped off plane 31 May. see sp. acc. ♀♀ giving bug-off display to ♂ by 3 June. But ♀ flocks flying by thorough evening of 4 June. Nest found evening 4 June. Widespread in habitat but more concentrated in low areas.

Carex stringa, extensive LCP's. ♂♂ also on ridges. ABUNDANT

C. mauri - displaying actively evening of 31 May. Continuing throughout through 5 June. some aggressive interaction w/ C. pusilla. ♂ nutcup displays, intensive chases. habitat largely restricted to wet tundra + nearby ~~the~~ ridges particularly near lakes, ponds and lakes. ♂♂ tool about over considerable distances, but display foci are well defined (~~the~~ i.e. patchy). I cannot perceive habitat differences from C. pusilla save that many pusilla are also in drier ridges than mauri. common

JPMYers
1977

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

5 June
(cont'd)

C. pusilla - displaying actively 31 May. ♂ nest cup displays 1 June, 1 nest cup found 1 June. distraction displays 2 June and thereafter. Habitat widespread from low wet sedge marshes to dry lichen tundra. may use both where they co-occur, and be restricted to lakeside mosaic w/ bluffs where both are present. But who knows? a common bird

→ Tryngites subruficollis - lek activity 1 June (found by h.s. 30 May) w/ active ♂♂ - see sp. account. individuals seen elsewhere also (3 on 2 separate occasions).

lek habitat is Carex-Saxifraga upland tundra merging w/ wet lichen tundra.

Limnodromus scolopaceus - displaying actively 31 May. adults skulking as if w/ nest by 3 June, but still tooling about in ~~low~~ flocks of 5-8 birds flying 100-200 m overhead, singing on 5 June. Also pairs seen flying long distances - straight flights from the time I first detected them until after they disappeared even on 5 June. Habitat largely low + wet or LCP patches on ridges. Most frequently observed in Carex strings.

← Calidris alpina - displaying actively 31 May but not common except around air strip near camp. Birds obviously still moving until 3 June (same as Limnodromus). On 5 June transect samples detected many more than I had expected. Also found several obviously w/ nests (but found no nests). habitat tends toward upland sites although some do occur in lowlands. upland polygonized ridges especially mixed polygons with mostly flat centers appears to be preferred. Habitat separation w/ Uroloncha more apparent here than at Barrow: alpina is an upland bird.

Phalaropus fulicarius - inconspicuous 31 May but a few individuals that night.

significant influx 1-3 June w/ ♀♀ appearing first (see sp. account). moved into large melted ponds originally, then spread to lake margins and Parex marshes as these cleared. By 3 June conspicuous pairing (but not 1 June lots of ♀ aggression centered around ♂♂ (see sp. account). Nest cup found 5 June. ♂ sunplanting

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1977

Journal

Atkasook, Meade River, N. Slope Borough, Alaska

5 June
(cont'd)

[Ph. fulicarius (cont'd)] seen on 5 June - pair of RP's chased away from area by another ♂ of another pair. ♀ chases ^{after ♂} seen regularly common

Ph. lobatus - First seen 1 June when a few pairs evident in air (<10).

uncommon thereafter through 5 June. all birds paired by then. Too few to separate habitat from Ph. fulicarius. Present in small tundra ponds to margins of large lakes. Not in upland tundra.

Larus hyperboreus - individuals seen regularly 31 May → 5 June. Paired by 3 June on at least 2 lakes, ~~even though~~ ^{but} not incubating. Little apparent display activity. Most birds around are adult. 1 1st year seen. No 2 year. At least 30 in Atkasook area

Xema sabinii seen on 2 separate occasions, both times pairs of gulls flying to NE, 3 + 5 June.

6 June

Sterna paradisaea 1 June first to appeared flying overhead. a few seen 2 June. By 5 June regular (>20 seen) including several carrying fish over the tundra between ponds. Isolating in pairs by 6 June + sitting on pond islands along transect 11.

Stercorarius pomarinus - seen moving through each evening, often in large flocks up to 25-30 birds. all headed NE. Individuals also passing by in same direction. Most evident evenings 2-4 June. No displays seen, little foraging

St. parasiticus seen 1 June on. Small numbers ^{+ dispersed} but some displaying. nest cup + wing raising seen by pair on lake island in (10,36) on 5 June.

2 June ^{another} pair seen dive bombing Nyctea scandiaca on river loop near (21,38)

~~Melospiza~~

St. longicaudus. Individuals seen by 1 June. Displaying 4 June. 5 June active territorial chase on ridge west of camp - pairs continuously chasing over ridge. Flight display w/ flapping wings, gliding, screaming. Chasing parasiticus

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Atkasook, Mcade River, N. Slope Borough, Alaska

6 June
(cont'd)

Nyctea scandiaca ♂ seen on 3 separate occasions - flying in 31 May, on tundra 1 June and 2 June. No sign of ♀.

Asio flammeus - no displays seen but individual seen flying over on 2 separate days, including 2 at once on 4 June.

Corvus corax - 1 seen 4 June flying ~~ab~~ W.

Motacilla flava obvious chirping around camp evening of 31 May.

Every day thereafter over first 300 m upstream from camp along river bank. individuals occasionally ~~detected~~ detected elsewhere thereafter. Flight display seen 1 June on. Good falling announcement w/ wings ~~sp~~ + tail spread seen by runway 6 June.

Passerculus sandwichensis ♂♂ singing evening 31 May. commonly thereafter every time I entered appropriate ~~habitat~~ ^{up to 20cm standing dead} habitat - tall swampy grass, usually Carex mariscus, sometimes w/ Salix pulchra and also Salix lanata along river terraces. ♂ pair seen 6 June along tran 7 Salix - Carex.

Acanthis flammea hornemannii - all Redpolls observed will have been generally pallid w/ plain white rump. ~~not~~ Observed from 31 May. Nest cup w/ no eggs but already lined found 1 June at base of Salix lanata bush on river bluff bank. pair hanging around + obviously distressed (we ^{away from} spooked them ^{up to 5} off nest). small groups + individuals heard regularly (4-5 times/day), anywhere on tundra as they flew over. Found every visit to streamside willows, foraging in small flocks up to 5 birds. Also seen by camp in willows feeding on Carex aquatilis seed heads.

Zonotrichia leucophrys obvious singing around camp. not apparent elsewhere

Passercella iliaca gabori - Lyne skagel saw before I arrived 31 May.

Calcarius lapponicus ♂♂ seen displaying before I got off plane.

Constantly thereafter. By far most abundant bird at Mcade

River. Very widespread in habitat in virtually everything although

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Atkasook, Meade River, North Slope Borough, Alaska

6 June
(cont'd)

Calcarius (cont'd) less dense on exposed ridges and in the lowest Carex marshes. ♂♂ displaying in flight song throughout. 1 nest cup found 1 June, no eggs (2 eggs in nest by 5 June) 4 nests found 5 June w/ 3, 0, 3 and 3 eggs. Nests typically built under Salix pulchra or clump of Eriophorum vaginatum.

Plectrophenax nivalis - perhaps as many as 4 pairs in area around camp using bluff + buildings including mine shaft. None seen elsewhere. Building nest by 31 May.

Well that summarizes bird observations through ^{31 May} 5-6 June. I worked on these notes through the morning of 6 June waiting for El avion from NARL. But at 1400 they indicated that it was unlikely a plane would come in, so I immediately set off to sample transects 6-10. LS is having foot problems. Ran transects 1530 → ²⁰³⁰ ~~2000~~. Got back to camp at 2400 + plane appeared at 2130_N. ^{River breakup began in earnest while I was sampling} I was in NARL by 2230. Yecch! Transects were very productive at Meade - see summaries.

Flight back to NARL was fascinating as lighting was superb. All of the tundra is melted around Meade but as you go north the % snow cover increases until by Barrow up to 50% still under. Grids 1 + 2 are in sharp contrast w/ surrounding habitat because they are almost 100% clear tonight (apparently heavy melt-off today w/ sun, fide Erickson). Talking w/ Erickson is disturbing because his comments indicate a piss poor melanotos year, and very few fulvicavis.

NARL, Barrow, AK

7 June

went outside 0.m. w/ Erickson + D. Shuford to grids 1 + 2. I frankly didn't believe their comments about how few birds there were. But out on the grids I found only 3 ♂ melanotos (max) with only 1 host in 2 hours. Bitter cold (~~30~~ 30°-32° w/ ice on surface, strong

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Journal

NARL, Barrow, Alaska

7 June
(cont'd)

NE wind + low wet ~~clouds~~ misty clouds. Oh ^{for} the sun of Meade! Calcarius is still building nest cups, but C. pusilla + C. alpina appear to be well dispersed + probably w/ nests. the Melanotos scene is frightening. So few, doing NADA! Perhaps it is early but the ducks are here in abundance, particularly Anas acuta. Few Fulicarias. Spoke w/ Pilelka this afternoon and he calmed me down (un neur) saying it was still early. I decided to return to Meade because ~~the~~ more field time was essential there than at Barrow right now given aspect of season. Ranunculus
nivalis blooming

Atkasook, Meade River, N. Slope Borough Alaska

~~1000~~ 2300 returned to MR via Arctic Guide Air taxi. NARL unable to drum up flight. And Meade is better by cold, fog + wind. unlike the friendly place I left. River up enormously (20').

Big ice jam in front of camp backing it up + spreading over lowlands.

8 June

Quite a day of Barrow^{-like} weather^{at Meade} - ice on ponds, low fog and NE winds at dawn. My fervor for fieldwork was quelled abruptly after a brief tundra sojourn. Spent the morning completing field notes. Then in the afternoon (through ~~2000~~ ²⁰⁰⁰) went to the breeding bird survey to do censuses. See breeding bird census account for results. Overall impression of the grid is one of reduced activity by displaying birds, particularly ♂ Melanotos. This is generally true across the tundra. In fact today I saw a Melanotos ♂ w/ reduced pectoral deposits. Hooting recorded infrequently. Also apparent is the reduced flow of migrants through the area, same for Corvus arcticus. However many species are still quite active: pusilla, mauri, alpina, ^{molting primaries} Limnodromus, Pluvialis ~~dominica~~ dominica + squatarola. Calcarius.

9 June

0800-1400 out on the loop, first in Patagonia looking for Fringillas, then back to the census grid from 1130 to 1400. Census totals combined w/ yesterday's and w/ Lynne Stenzel's in census account. Weather again less than desirable but clearing by 1130. Strong NE wind. The buffy situation was disappointing - max of 2 - see sp account.

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Atkasook, Meade River, N. Slope Borough, Alaska

10 June

off at 0700 to sample transects 5, 11-14. Weather today (until 1400) was the most pleasant I've ever experienced on the N. Slope - 50°'s, no wind. w/o mosquitos yet I was able to spend from 1000 on in a t-shirt. Remarkable. From the last 2' day's fieldwork I have to suspect we have passed the peak of activity for many shorebirds: pectorals are much less active, & are almost ^{all} on nests and not receptive to ♂♂. Dunlin is variably ^{greet} ~~greet~~ you with a surreptitious note + skulk off away. Semipalmes are still displaying, and so are westerns although not anywhere nearly as often as 1 week ago. The only species still obviously in the throes of their sexual expression are phalaropes and waterfowl. Yellow-billed Loons were having a violent fight on Pingo Lake - grabbing each other by the neck and whacking with incredible force, audibly over 200m (and more) away. Phalaropes are copulating. Glaucous-gulls are laying. And the ducks are quacking. - all are paired, settling out across pond + swale, dropping eggs betwixt the tussocks. Tundra has dried perceptibly, in a ~~some~~ low center polygons - the center vegetation is emerging along the periphery. Anemone blooming, ~~has~~ Pedicularis lancea in its early woolly stage.

NARL, Barrow, Alaska

12 June

tracking ♂ melanotos during a.m. (0800-1300) Tape recorder malfunctioned after 14 min of work so the entire morning was a bust. ^{-6.12.77-1} Dawn was clear + warm but at 0700 a heavy fog moved over, and did not disappear until 1130. melanotos very sparse.

GRID 4

evening (1800-2100) went to GRIDS 3+4 to track. ~~Both~~ Both had ♂ melanotos active but in each density was obviously low. So I went to 4 because it lacks any appreciable relief, being all low LCP and ponds. Tracking was successful from 1840-2023. see melanotos sp. account, tracking record for 6.12.77-2. Spec's seen en route to the grids added 2 to the daily list, Calidris canutus and Calidris fuscicollis. The density of displaying C. bairdii along gasline ridge is truly remarkable, with displaying ♂♂ lining the sides. They have arrived within the last few days according to Dick and Dave. TUNDRA PHENOLOGY: Ranunculus nivalis blooming in selected sites on GRIDS 1 and 2. Melt off largely complete even on GRID 4, where ~5% or less remains snowcovered.

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NARL, Barrow, Alaska

12 June
(cont'd)

Larger patches of snow remain along poked ridge sites and in creek bottoms. ~~the~~ Run-off from the melt has crested but there is still appreciable flow. Tundra ponds at their fullest.

13 June

tracked ♂ melanotos on GRID 4. see mel sp. accnt.

14 June

tracked ♂ melanotos on GRID 4. see mel sp. accnt. *. Also tracked ♀ fulicarius.

Dave Shuford has become quite adept at hooking them so we now have a banded pop.

C. bairdii especially prominent now, particularly along Gasline ridge, displaying continuously. ASIDE → why should there be so much individual variation in the

distances at which birds get off nests. HYP: an optimizing problem between advantages of getting off early (lower predation) vs advantages of staying on longer (less thermal stress). May also result from different mediator strategies. What other factors could be involved (more later)?

15 June

I sampled transect 3 a.m., then did tracked ♀ fulicarius in a.m. + p.m.

Not terribly nice day. 34° windy. Dave Shuford is doing quite well at catching ♀

Ph. fulicarius. ♀ melanotos now appearing on GRID 4 after a day in which several flocks were seen flying N or NE. This appears to be comparable to the movement last year, although today's easterly wind may be keeping them down or making them less conspicuous.

16 June

more tracking on GRID 4. As of this evening Dave has captured 19 fulicarius, 17 ♀ and 2 ♂. Wind today made activities truly miserable, with 34° almost all day and a low wet fog moving in by noon. The strong easterly winds of the last few days have wrought an incredible feat on the sea ice — there is now a lead several hundred meters wide within 1 km of shore (probably ~300 m from shore). We had known that there was very little fast ice formed by the mild winter this past season. Now that is abundantly confirmed, because even with howling easterlies normally would not suffice to open up a lead so close to shore, especially one the dimensions of that now stretching off NARL. By town it comes much closer to shore. Dick and Dave scanned it for birds and saw only Glaucous Gulls and Black Bruffmots.

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Journal

NARL, Barrow, Alaska

16 June
(cont'd)

And how is the TUNDRA? - melt-off is now complete, save a few snow-filled creeks. Run-off is largely over, with North Creek clearly subsiding. But the tundra remains wet, covered in many places up to 95% by melt-off water, particularly in latifoliate like GRID 4, i.e.

~~Carex~~ poorly drained Carex - Eriophorum russeolum meadow + low center polygon.

Ranunculus maritimus continues to sprout yellow beacons amidst the drab brown of standing dead. Pedicularis lanata is now at its woolly best, showing signs of pink blossoms along Gasline Ridge and in fact a few flowering individuals can be seen. Salix puleux has pussy-willows, its catkins heavy with yellow pollen. And in several places the greening of the tundra has begun - bases of Carex and Dupontia are gaining color, being most evident in areas where winter lemming activity was concentrated. Lemmings? - I've seen 2 Lemmus so far, one on gasline ridge, the other on GRID 1. Cropping is heavy ~~but~~ in a few patches. But nothing compared to the previous 2 years. ~~The~~ Lemmus crashed during the winter. Of course this has impact for the birds: no breeding pomarine jaegers, no snowy owls. In fact there don't even appear to be silted parasitic jaegers.

Two stand-out developments of note: ① numbers of ♀ pectorals is up markedly, and ♂ display activity has also risen. This includes the previously barren GRID 4 area. ② Baird sandpipers are having a very good year, displaying with extraordinary conspicuousness along Gasline Ridge, and even out into the TRANSECT 3 region. ~~Westerns~~ and C. mauri and C. fuscicollis are also more obvious this year.

17 June

another day of tracking. wind lessened, sun stayed out, making work ~~even~~ more pleasant than the ~~past~~ yesterday. We now have 24 banded birds on or around the grid (in theory). But the frequency of sighting these birds suggests there actually are many more out there than one might expect. Fewer than 30% of the birds we observe are banded. This suggests that quite a large # of birds move in and out of the area. Further, we see only a small proportion of the banded birds. This suggests that birds move freely in and out of our focus of activity - something already hinted at by the tracking data.

18 June

ditto.

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NARL, Barrow, AK

19 June

tracked ♂ melanotos and ♀ fulvicornis today, from ~0900 to 1540. A long cold day in the tundra, weather varying between chilly and cold, fog or sun, ~34° rising to 40 but with a constant northerly breeze. The pectoral scene looked up today, as I worked 4 ♂♂ with decent and reasonably small territories. Not strenuously active compared to last year but hopping enough to keep me busy and ^{my} muscles warm. Even though the ♂♂ were active I found precious few ♀ in area: in fact only one popped up off the grid as I worked. ~~None~~ & there were probably no more than that, but there were ♂♂ moving through. The fulvicornis scene is calming down considerably, with many fewer using the grid now, and most of those being either unpaired ♀♀ or ♂♂ on nests. However the bird I tracked (B:6) laid her first egg today - a rope-cone-lately. See Heteroscelus brevipes account.

20 June

very frustrating today out on GRID 4. Yesterday I had tracked melanotos along the ~~eastern~~ ^{southern} eastern + southern edges, finding ♂♂ cooperative. today I tried the Northern half + had a hell of a time finding ♂♂, much less any ones being territorial. As a matter of fact there are at least 2 areas where non-territorial ♂♂ dally as they please without risk of being supplanted. Activity along E+S continues unabated.

Weather today was Barrow at its variable best: 34° at 0700, rising to ³⁸ ~~40~~ despite snow, fog, a NE wind, splashed with a fog fleck of sunshine when a break in the thin overcast let a few rays through. No ♀ obvious

~~JPM~~

Prudhoe Bay, North Slope, Alaska

21 June

Flew ~~out~~ to Prudhoe (Deadhorse Airport) today on the Wien jet, arriving 1215. Found rental truck immediately + set off looking for place to stay (VE construction - ^{NORCON} ~~NORCON~~). Apparently ~~I drove~~ ^{I drove} past the place 3 or 4 times before actually ^{finding} ~~locating~~ it. The Prudhoe horizon is very dis-orienting, filled as it is with innumerable drilling rigs, indistinguishable construction camps, and an unreal flatness that exceeds even that of Barrow. Today's low clouds and intermittent rain only compound the ~~navigation~~ problem. Once I found the place, checked in etc.

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Journal

Produce Bay, North Slope, Alaska

21 June

I began to reconnoitre, with my first stop being the ARCO base camp to call on Angus Gavin, resident Mr. Nature, duck counter + wildlife surveyor for the oil companies. His report: early ^{than} year that froze up again. Ducks galore, particularly A. acuta and even a few A. platyrhynchos. He ~~also~~ also told me they had yearly flights of Limnodromus griseus as well as scelopaceus! According to Gavin both ~~B. hutchinsoni~~ ^{King} + Spectacled Eider nest ^{commonly} within the oil fields commonly, as do B. hutchinsoni, B. canaliculata, Anser albifrons, Anas acuta, Aythya americana. The A. platyrhynchos this year (no evidence yet for nesting) are casual, and probably relate to the incredibly high W. Slope dabbling densities of this year [J. Bortonek of Alaska D. Fish + Game reports his aerial transects up a minimum of 100%]. Gavin obviously has his heart in ducks, and may not be the best source for shorebird info. He did comment on lower than normal Ph. lobatus and Ph. fulvirostris densities, as well as an absence of Trypion in a usual lekking spot south of Angel Pingo. Pectoral sandpipers and Semipalm Sandpipers are in good number, he says. After finishing w/ Gavin (1430) I went off in the truck for a broad regional survey, driving first out to the West Dock area and then off the way to the Kup River. This road system in some ways is fantastic, allowing, for example, me to see more acreage of tundra ^{on the ground} in 3 hrs driving than I had in 2 entire years at Barrow on foot. Judging from obvious breeding Gavia archica, Somateria mollissima spectabilis, and other large waterfowl the roads have been adapted to — perhaps not by these species — the larger ones which may still be breeding in lower density or w/ reduced success — but probably by most shorebirds. My reasoning is simple — if the large birds appear to be breeding in number then the smaller ones probably are even more so, being more tolerant of human activity. But one very real concern that I have is for the ^{effects} possibility of an altered melt-off regime. All these roads and gravel + ^{their associated wind-blown dust} ~~dust~~ will cause the snow to melt several weeks early, changing the thermal regime, exposing the vegetation to colder temperatures and light earlier than expected, and also making run-off early. This may directly affect the vegetation or it may affect the invertebrates — i.e. the sand sandpiper prey. Anyway, ~~at about~~ I cruised about until

Journal

Prudhoe Bay, N. Slope, Alaska

21 June

1815 On the whole the habitat here appears more uniform over smaller areas than that at Barrow, but in toto there may be more types here. The most familiar to me ~~are~~ found out by the wet dock, along the ~~the~~ NW edge of the bay - a good mosaic of mixed polygons and ponds w/ C. melanotos, C. alpinus, C. pusilla, Ph. fulicarius - i.e. the Barrow hard core. Of these C. melanotos are the most conspicuous - as you might expect because of the ♂ behavior. But C. pusilla pop up whenever you stop, and in wet Carex Ph. fulicarius are quite regular. No where, however, have I been taken by a real abundance of shorebirds. Even ~~longspurs~~ ^{longspurs} are rather infrequent.

22 June

today set 3 0.5 km transects in a miserably persistent rain. temp ~ 36°. NW wind 100% low clouds. rain from ~1030 on until long past when I quit at 1830. This is worse than Barrow weather (though I suspect that Barrow is suffering similarly - the thought that they too are unrelieved is (in a perverse way) consoling). My transects emphasize low wet tundra today - low center polygons and low hummocks grading into somewhat higher land on Tran 1 (see map for locations). T2 is entirely low center polygons and marshes. These LCP's are nowhere nearly as well formed as those at Meade River - they lack the well defined rim system with a deeply contrasting center. Nevertheless the rims are perceptibly above the center and their vegetation is more mesic. T1 also crosses over a slight sloping ridge and then passes in to some high hummocky areas flecked with a fine mosaic of dry rim veg. ^{with} low troughs and centers - but the physical array is much less regular than that at Meade.

I also traversed some streamside habitat - Dryas integrifolia, Saxifraga oppositifolia with strong wood burl activity on a steeply sloping bank. Although the habitat was extensive - 20 m wide + as long as I walked along the stream (500 m) found only one bird - a soaked Lagopus lagopus ♂. A nearby pingo across which T3 passes I observed a hunting Stercorarius longicaudus (actually on the adjacent upland tundra) and Calidris bairdii - a nesting pair - , off C. alpinus (appeared to be nesting in adjacent upland tundra), and a displaying ♂ Pluvialis squatarola as it supplanted a P. dominica.

23 June

more dastardly rain this morning, soaking through my "rain" gear. What fun. - temp 36° a good NW wind chopping along blowing the rain that came up at 0430. I am still flying

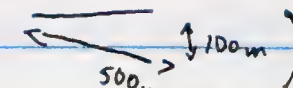
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1976

Journal

Prudhoe Bay, N. Slope, Alaska

23 June

to psych the place out while also putting up transects and sampling them. La lluvia me demoró. Hija de la gran puta madre de Prudhoe. This a.m. began well when I found a small buffy le active where the Little Potuligayak river meanders near the main road. (See Epp accent). Then things deteriorated, as a site I'd tentatively chosen for a lowland tundra transect turned out to be insufficiently extensive and also blessed by constant ~~road~~ gravel hauler passage. Went to Angel Pingo (flushing a ♀ *Tryngites*) but was flushed myself by a work crew. So I continued down that spur, parked, at began to walk ~~out~~ south toward an area of upland tundra, only to have the rain begin + then come on strong. Laid T4 + T5, sampled T4, but retreated before T5. I was thoroughly soaked. Rain continued steadily to 1400, but at 1330 I decided not to wait, so went out (first to get gas at NANA) and put in T6 + T7 near the airport. Much to my surprise the rain stopped and I actually returned to camp dryer than ~~during~~ ^{when} I was during the 1st hour (wind evaporation). No more rain but intermittent ^{high} fog till 1700. Transects 4 + 5 were not very exciting, cutting through nice habitat (4 runs along the W bank of the Pot River) but one not very productive for birds. T6 + 7, on the other hand, ^{each} passing through a section of lowland polygon/pond mosaic are superb, stuffed with pectorals and phalaropes of both species.

p.m. 2030-2300 placed 2 additional transects near the West Dock. Rain never reappeared, but a thick fog changed to snow w/o much difficulty. Stopped en route to look at mouth of ~~the~~ river by road which had extensive exposed mud (~ 500 m ~~x 200m~~ long ) and bordered on sea side by a slightly raised sand beach ridge (30 cm) and then a ~~big~~ patch of open water before the ice. Shorebirds: 2 *C. bairdii*, 2 *C. pusilla* ~~MAA~~ MAS. The mud was a good set of ooze-y stuff ~~which~~ which sucked at my boots as I waded through. No vegetation. Continued on to the Barrow "analog" (~~the~~ vide P. Welcher) ~~at~~ by the west dock. By George! it sure is - with a good set of polygons covered by typical upland Barrow vegetation (Wadum II). More *Salix pulchra* here than I've seen anywhere else at Prudhoe. Laying the transects I found 2 ♂ *Tryngites* on the rim of an old lake basin displaying.

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Journal

Produce Bay, N. Slope, Alaska

24 June

argh. quite a day - out into the field at 0620, back at VE by 1715. Forgot lunch, but that made little difference as there wouldn't have been time anyway. Sampled all transects save 8+9 (West Dock). The difference in bird densities between upland tundra and anything else was painfully evident, particularly on trans 4+5 where I recorded no shorebirds. See transect summaries. Weather not as bad as last few days - with a steady mist instead of rain (but the mist is thick enough to ^{make} ~~render~~ binoculars a ^{water-}frosted ~~useless~~ ^{useless} item. Temp ~38°. Steady NNE wind. Began clearing ~1700. Typical timing.

25 June

0600 out to transects 8, 9. near the west dock (Barrow analog.) Sampled each twice this a.m.: going out and then returning. A caribou preceded me as I worked out, moving along the transect line, running back to investigate me, then clamboring on. Not the most coordinated animal. Saw several buffies en route, displaying ♂♂ (see sp account). An arctic fox worked over some littoral tundra by the end of the dock, harassing ~~about~~ 15 Branta bernicla. Weather improved considerably - light NW wind, occasional calm. Temp in high 30's. High clouds, no mist. After sampling the West Dock transects I drove out to the East Dock to check out the sand dune region: few birds ~~is~~ if any in the dunes proper, although the place ~~seems~~ appeared replete w/ Spermophilus. There are large expanses of sedge covered sand (consolidated dune) that harbor C. pusilla (a few), Calcarius lap (a few) and both phalaropes whenever there is a large pond. Near Surfote Camp and by the river in sedge marshes there appeared to be large numbers of waterfowl. But in general this area is bleak compared to other local sites. With today's good weather there was an emergence of dipterans - looks like a large chironomid - which Phalaropes (both spp), Arctic terns, Sabine's + Glaucous gulls are keying in on at one roadside pond. A feeding frenzy. Stopped on way back from sand dunes to talk with Angus Gavin about waterfowl habitat. He tells me the following: GEESE - Anser albifrons prefer large lake margins in low areas, and can nest quite densely but in separate pairs. Branta canadensis also nest in low wet areas but ~~do~~ do not require as large a body of water - they will nest on small ~~the~~ islands in ponds. Branta bernicla nest in colonies in a

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Journal

Prudhoe Bay, N. Slope, Alaska

25 June
(cont'd)

few places, particularly littoral areas, on several lake margins (e.g.) Eurf Cote camp, and especially in barren tundra places beside lake margins. All these species of geese are common. Ducks - *Somateria spectabilis*, *Anas acuta* + *Clangula hyemalis* are all common species nesting in extensive lowlands. ^{C.h. most common} He (Garin) detects no strong habitat separation. Loons - only common species is *Gavia arctica* - it is everywhere where lakes or ponds exceed ~0.5 ha in size.

p.m. 1800-1900 went to west side of oil field to sample transects ⑤, ⑩, ⑪. Went with Steve Johnson - one of Wayne Hansen's EROA employees who is studying nest success around the VE camp. Most impressive ^{feature} ~~about~~ ^{afternoon} ~~evening~~ was the number of *Tryngites* about, including 1 ♀ on a nest (see sp account), and 5 ♂♂ recorded on transects. Arctic fox working lake margin, presumably for bird nests. No Foxes, by the way, are everywhere here this summer - rarely do I spend 4 hours on the tundra w/o seeing one lopping by. No lemmings save in a few local sites where there is sign of sparse winter activity (Barrow analog, VE camp area). The fox are eating something else, probably lemmings judging from high nest predation rates recorded by Johnson. Hansen's people tell me there was a serious rabies outbreak this past winter in the foxes, that Arctic were recorded very far south - beyond the Brooks range - during the winter, and that there are apparently intra-litter killings => all sign of a crashing fox population says Eberhard.

26 June

out at 0600 to tran ⑩, ⑪ region to photograph *Tryngites* and *Stercorarius longicaudus*. weather still improving, with the roads already spewing a bit of dust, light NW winds, high clouds with sun occasionally breaking through. The ♀ buffie were incredibly cooperative, ~~stop~~ returning to the nest repeatedly and lay 8" away. The long-tailed jaeger even incubated my hand. Left Prudhoe Bay at 1230 on Wicon flight to Fairbanks (80°) and then to Barrow at 1500. Foggy + cold. Below I ^{summarize} ~~list~~ summarize observations on all species seen at Prudhoe.

Gavia arctica - common breeder on larger ponds and lakes. nests on margin or on islands. distributed generally throughout oil field.

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1977

Journal

Prudhoe Bay, N. Slope, Alaska

26 June
cont'd

Gavia stellata - seen 3 days, ^{single} displaying in flight. uncommon

Olor columbianus - I saw none, but Erik Hansen told me where an active nest was, and A. Gavin said there was no real difference in density between this + previous years.

Branta canadensis - common in lowland habitat, mostly in nesting pairs but several flocks seen foraging in uplands. Gavin says they nest on lake + pond margins, using smaller bodies of water than Anser albifrons

Branta bernicla nigricans - common, seen every day in flocks particularly toward West Dock. appear to be more concentrated in littoral marshes, but Gavin may dispute that. nesting in a colony near Surf Cove Camp.

Anser albifrons - common lowland nester, dispersed in breeding pairs but some flocks also apparent. Distributed throughout but seen less frequently by Service City

Anas platyrhynchos - 2 ♂♂ seen on 2 separate occasions in same place by Deadhorse

Anas acuta - common, breeding this year in large numbers in lowland habitat. Hansen's people have located nests

Anas clypeata - mixed flocks of both sexes (up to 5) seen on several occasions flying over

Clangula hyemalis - common breeder. 6-24 found nest w IE. paired in all ponds, habitats from low wet (perhaps less frequent) to mixed ponds + polygons. Flocks also seen flying over. One ♂ in full winter plumage seen.

Somateria spectabilis - common nester in all lowland habitats + in larger ponds dispersed through uplands. All appeared to be paired

Somateria fischeri - uncommon but seen most days, paired in lowlands.

Lagopus mutus - ♂♂ seen several times along one drainage through which T11 runs (see map on opposite side). Also on T10. Upland tundra on 10 + snowbank on 11, the ♂ moving on 11 along the upper edge of the creek channel in U6 vegetation. On 26 June ♂ + ♀ seen in this habitat, ♂ aggressing and displaying. ♀ well molted.

Fluvialis dominica - common upland bird, not seen in central portion of field (SE of Pit R.)

lowlands here of
in ~~central~~ low center
surrounding large bodies
w/ open water +
aquatic. Distinct from
upland tundra.

JPMeyers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

26 June
(cont'd)

but breeding in upland tundra by the west dock and to the west of the Pot River at least as far as Buffy Pingo (see map). Displaying intermittently, ♂ in flight display, but by behavior all pairs are on nests - frequent distraction displays.

Pluvialis squatarola - less common than P. dominica, ^{pair} seen ^{regularly} on Buffy Pingo and in a few other upland sites + particularly near ridges. 1 ♂ also seen by V.E. camp. ♂ flight display on 26 June.

Anas interpres - uncommon, a few heard flying over, seen chasing jaegers.

Calidris melanotos - common lowland sandpiper in all lowland tundra (except eastern sand dunes + ^{sterilized} dunes). Ventures heavily into upland tundra complex (see Webster/Walker vegetation types today's journal) where ~~polygonized~~ but absent from upland tundra sensu stricto. ♂♂ actively displaying. ♀♀ on nests. ^{see sp} _{account}

C. bairdii - although the 1st pair I saw in Prudhoe this trip it is uncommon, occurring coastally + in littoral (see journal ²⁴ ~~23~~ June) and nesting on pingos and probably along river ridges. Displaying actively on Buffy Pingo.

C. alpina - common upland sandpiper, venturing occasionally into lowlands but not in great number, even where lowlands are polygonized. Recorded regularly on all upland transects. 1 nest found by Buffy pingo, 3E 24 June. Almost all birds molting primaries. Very little display activity. Although an upland bird it appears to avoid the extreme upland barren tundra used by C. bairdii. - i.e. not on snow banks or barren tundra.

C. pusilla - most common sandpiper, generally distributed in both lowlands + uplands, but using uplands (I think) only when cut by lakes or streams. i.e. it does not occur on vast expanses of uniform upland tundra. Many ⁻¹⁵⁺ nests, all w/4E. Little active display, but a lot of alarm calling. No sign of hatched chicks.

C. mauri - one seen in Puccinella marsh by west dock 22 June.

C. himantopus - uncommon but seen most days. ♂ displaying 2 consecutive days in lowlands N. of Buffy pingo. Song is a cross between fuscicollis + alpina.

JP Myers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

26 June
(cont'd)

Tryngites subruficollis - common !! upland bird, regularly observed on most upland transects. One nest (4E) found 26 June, another suspected but not found 26 June. ♂♂ displaying actively throughout. [see sp. account.] Habitat is unquestionably upland. observed on both pringos I visited + generally along ridges, particularly those with expansive views. On the last 2 days (good weather) they were easy to spot as ♂♂ rose together in a horow display.

Limnodromus scolopaceus - infrequently encountered in lowland tundra and upland tundra complex. 1 or 2 flight songs, ~~partially~~ in area of West Oxle.

Phalaropus fulicarius - common lowland bird in pondy areas w/or w/o polygonization. not using large open bodies of water except with thick emergents along periphery. most common in M4 vegetation where strongly polygonized. One flock of ~40 seen. but in small groups, many pairs still formed. obvious nesting ♂♂. never in uplands.

Phalaropus lobatus - common but less numerous than Ph. fulicarius. Same habitat. paired, no flocks seen.

Stercorarius pomarinus - a few individuals seen passing through, one flock of 6 on 25 June. no apparent breeding.

Stercorarius parasiticus - breeding in low density.

Stercorarius longicaudus - breeding (1 nest, 1E 25 June) but less common than

St. parasiticus. seen most frequently in higher tundra by Bully Ringo. the nest was at the N end of T11.

Larus hyperboreus - common, breeding in pairs on lakes throughout region. some flocks of non-breeders seen, particularly near camps.

Xema sabinii - a few seen scattered through low wetlands. one assembly seen a.m. 25 June feeding w/ other birds on emerging chironomids.

JP Myers
1976

Journal

Prudhoe Bay, W. Slope, Alaska

26 June
(cont'd)

Sterna paradisaea - seen regularly in low numbers foraging in wetlands. No sign of breeders.

Nyctea scandiaca - seen twice near West Dock.

Acanthis sp - heard flying overhead on 2 occasions, both times near Buffly Rings.

Calcarius lapponicus - abundant, widespread through most habitats, apparently limited only by the need for a dry nesting site. Sometimes I wonder if even that is necessary. ♂♂ still singing, but not regularly. A few ^{♂♂} flocking by ♀♀.

Nests monitored by Steve Johnson near VE began hatching 21 June.

♀♀ carrying nesting food obvious throughout my stay. I stumbled over at least 10 nests all w/ 4+ young. Suffering tremendous fox predation (fide Johnson).

Plectrophenax nivalis - blessedly limited to local sites around camps. very restricted, not seen otherwise.

Corvus corax - 1 individual seen on 3 separate occasions.

Well that's it. Nothing unusual, just good, clean birds at Prudhoe. ~~The Red~~ I have appended vegetation description to today's journal, taken from work by D.S. Walker + P.J. Welsher, INSTAAR. My transect units are all described in rough + qualitative terms using W+W's major Prudhoe vegetation classes. In general my impression is that ^{avian} habitat separation is clearer here than at Barrow, perhaps in part due to the more better defined separation between upland + lowland areas. The fine scale of habitat interdigitation which pervades Barrow does not ~~is~~ rule the Prudhoe region. Instead there are a few large areas varying greatly in overall composition (this is an exaggerated simplification, but the trend is there).

JPMycers
1971

Prudhoe Transect analysis

Prudhoe Bay, N. Slope, Alaska

TRAN 1

Abbreviations are Weldon/Walker tundra veg system -
see journal 26 JUNE

UT 3

UTC 5

MPP - 3

LTM 8

LTM - POND - 1

T2

LTM 3

LTW 14

LTW - POND 3

T3

UT ~~10~~ 9

UT - POND 2

PINGO 8

UTC 2

T4

UT 16

UTC 4

T5

UT 8

UTC 6

LTM - FB 6 ~~1~~ a FB

T6

UTC 1

UTC - POND/LAKE 5

LTM - ~~WATER~~ 2

LTM - LAKE 2

LTW 9

LTW - POND 1

T7

UTC 2

LTM 2

MPP 9

MPP = MIXED POLYGONS + PONDS

LTW 6

LAKE 1

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1977

Journal

NARL, Barrow, Alaska

30 June

^{1300 - ~~1400~~ 1800}
6:00 p.m. walked S of town to Nunavut Bay, after driving as far as we could along the road going SE from the airport. Path took us essentially ^{WNW} ~~WNW~~ until hitting the slopes of the bay's upper reaches, and we then followed the bay along its north slope to within 400 m of mouth into Chukchi Sea. A gorgeous day of sunshine, light wind, and 40° temperatures. Most of the ^{Dave Shufford + I} ~~habitat~~ we traversed was comparable to that found within our transect/grid area, but near the bay it developed extensive uplands - essentially sloping lands into the bay - covered with tundra not unlike unit (8,1) of T6. Vegetation is essentially the same, same that *Oryza integrifolia* is ~~more~~ common, and a few *Salix reticulata* are scattered about. But the real difference is the extent of the uplands, with the sloping ~~coast~~ banks occupying many ha. of ~~2~~ continuous land. Above the rim of the banks the tundra turned to ~~more~~ polygonized ridge vegetation similar to ~~unit~~ unit (18,1) of T7 - *Poa*, *Salix pulchra*. Well drained troughs. Bird life was reduced in density in most of the upland areas we traversed, especially ^{on} ~~to~~ the sloping banks where only 2 species were detected, Baird and Buff-breasted Sandpiper (1 of each) in the adjacent polygonized uplands. *C. pusilla*, *Calpina*, and *Pluvialis dominica* appeared, but only the 1st of these was "numerous" and this specimenly in one location near the edge of the sloping bank. Some *pusilla* were seen flying between upland polygonized areas down to the water's edge in the bay. We saw no *pusilla* before reaching the zone adjacent to the edge, even though some of the habitat we traversed was good mixed pond + polygon. This reaffirms Frank's contention that *pusilla* depend upon this sort of juxtaposition of habitat types. Gobs of *Emelanotos* and *♀ fulvius* moved through the lowland Carex marshes

1 July

transsects today: I ran 6-10 while Dave Shufford sampled 1-5. Weather 33° ^{at 0600} rising to 41° by 1430 when we returned. Fog, NE wind, clearing by 1100 to a sunny, windy day. The tundra is drying, ponds receding, flowers emerging. Found blooming *Potentilla* today and one *Papaver* in flower. Birds are moving through. Large flocks of *P. pectoratus* mixed with *♀ Red Phalarope* and a few dunlin were wheeling over the tundra - up to 40 birds in a flock. Gasline Ridge was teeming w/ birds: 28 Pectorals, 17 Dunlin in 10 ha.

JPMjews
1977


Journal

Barrow, Alaska

1 July
(cont'd)

A fox was working part of the transect, and appeared to successfully get someone's eggs or young. (judging from its behavior). I am somewhat surprised by the # of flocking dunlin evident already this year - birds that obviously are no longer breeding. According to Kaye Everett, the storm which rained on Prudhoe for two days while I was here also hit the foothills ~~and the~~ with 4 inches of snow at Toolik Lake. Hansen's people at Franklin Bluff reported 100% molting for Calcarius during that storm. So now we have ~~large~~ Dunlin moving through, and also non-breeding ♀ melanotos. Are their unusual numbers a ~~map~~ result of the storm?

2 July

walked out to end of T10 taking H₂O data from 0730-1130. Then until 1400 searched for nests on GRID 1. Weather began well, with 33° and a moderate E wind dropping to a light wind, all with 100% sun. But the wind shifted to a northerly direction and the temp fell perceptibly, perhaps because it also increased. Anyway, returning to the lab saw a pair of Aythya affinis - ^{♂+♀} scarp with  definite bump to profile and white speculum fading quickly on the ~~secondary~~ primary coverts. Dave Shuford, who has much more experience w/ Aythya spp ~~and~~ than I, angot excellent view of the birds. He went out later with a scope + reported the bill clean of the usual A. mailla markings. There were also 3 Polysticta ♀♀ there, and there also was a flock of Polysticta ♀♀ out near Duck Camp. Unusual timing that may relate to strange movements by ~~the~~ other birds - i.e. a massive breeding failure.

GRID 1 - last year's GRID 2

3 July

0930-1245 censused GRID 1. weather shitty: 33°, snow, sleet, ~~to~~ moderate N wind picking up through morning. 100% low clouds, fog at onset clearing w/ rising wind until unimilkently sunny. Very Sierra del Fuogo in weather quality, with patches of one thing followed by swatches of another. Bird activity on the GRID miserable, at least in terms of totals:

GRID 1 TOTALS	<u>Pluvialis dominica</u>	1	<u>Ce. melanotos</u>	♂	2		
	<u>C. alpina</u>	13	<u>Ph. follicarius</u>	♀	0		
	<u>C. mauri</u>	1		♂	6	<u>lobatus</u>	♂ 1
	<u>C. bairdii</u>	2		♀	0		♀ 0
	<u>C. pusilla</u>	16	<u>Calcarius</u>	♂	17		
				♀	14	<u>Electrophorus</u>	♂
				♂	1		♀

[Handwritten scribbles]

1
2

JPMyers
1977

Journal

GRID 1, Barrow, AK

3 July
(cont'd)

Activity varied across species, but the theme was: "let's harass the human". C. pusilla was especially pernicious, and I saw one set of ^{their} chicks. One C. alpinus nest was hatching. As Dave S. and Dick E. have reported, melanotos and fulvica activity is quite low this year here: no ♀♀ on the grid of either species. 2 ♂ melanotos passing through, but several incubating ♂ fulvica, with 5 of them nesting (I think) on or off ^{just} the grid. Calcaris were also a real trial, and my estimate of Calcaris number ~~was~~ is off the mark probably. It is next to impossible to count them at this time of the year.

TRANS 6-10

5 July

light rain from 0400 to 0600, but clearing thereabouts. Strong E winds, reaching 20 knots. Censused trans 3, 6-10 beginning 0430, ending ~~at~~ 1540. A thoroughly cold day with temperatures in 30's, reaching ~40 after starting at a classic 33°. Distribution of birds has changed during last several days, perhaps related to significant cold (frozen morning w/ some ice). Could not happen at worse time for birds, probably, because most shorebird nests are hatching in a rush now. The chicks are out in the cold. Insect activity very low. I see adult tipulids crawling about in low numbers, and many of the ponds are writhing with emerged chironomid adults, but with this severe cold continuing ~~reducing~~ their availability must be depressed. Today the distribution of Calpinus was remarkably different from just 4 days ago.

On that transect day they were largely in upland ~~deep~~ areas, with very few in low wet edge marshes. Today it was just the opposite, and most of them were obviously with chicks. What gives? Are ducks moving down this year? It is very dry, more so than last year. Pond depths decreased by over 10cm in a 14 day period ending 1 July. So if we assume that it is a real trend, and not some temporary aberrancy, I see 2 possible explanations: 1) that they are seeking damper foraging conditions for physical / invertebrate reasons (i.e. moving to a region similar in dampness to where they go each year or 2) responding facultatively to the absence of melanotos and going into what is normally melanotos habitat. Pectorals, as I imply here, are quite sparse. I encountered ^{no more than} 3 ♀♀ today which behaved as if they had broods. 3 ♀♀ on ~~to~~ 50 ha. of transect. Trans 5 and 10 are largely barren, contrasting strongly with my experience of previous year.

JP Myers
1977

JOURNAL

Barrow, Alaska

6 July

Que. pasa? The tropics arrive at Barrow. 38° at 0800, with a Cliff Swallow flying aside. Then through the morning the temperature rose to 50° , with a light breeze from W then S then E (growing) by late p.m. No clouds. I actually censused 6 and 1 w/o gloves, no hat, and a short-sleeved shirt. Unheard of!! But no birds popped unexpectedly out of the woodwork.

to populate a depauperate grid, so the swallow was a false

omen. Yes, the grid totals were low:

1000-1245	<i>Anas acuta</i>	♀	1	← well that's not terribly low! that is
	<i>Pluvialis dominica</i>	♂	1 ♂	
	<i>C. melanotos</i>	♀	15	
		♀	2	
	<i>C. alpina</i>		9	
	<i>C. bairdii</i>		3	
	<i>C. mauri</i>		1	
	<i>C. pusilla</i>		7	
	<i>Ph. fulicarius</i>	♂	3	
		♀	2	
	<i>Passerculus</i>		1	
	<i>Calcarius lapponicus</i>	♂	14	
		♀	8	
		j	2	
	<i>Plectrophenax nivalis</i>	♂	3	
		♀	0	

7 July

Stayed in most of the bay. Stenzel came up from Meads, Skuford went down.

8 July

sampled all transects with purpose of repeating tomorrow and 10 June to get an estimate of short term variability. Lynne did T6 → T10 while I did T1 → T5.

Day was clear except for an hour around 1300 when the fog rolled in, then only to clear abruptly by 1330. Moderate E wind, temp 34° rising to 40° . Generally pleasant. Bird densities fairly good (see Transect accounts), and ~~reason~~ but the habitat scene is rather different from the last transect sample (7.05.77) when I had been impressed by Dunlin activity in the lowlands, especially along T5. Today they weren't there. How likely is a daily rhythm in foraging, such that one habitat is used during one period while another is at other times - that could be confounding. Certainly possible for species using the littoral zone - e.g. pusilla.

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1977

Journal

Barrow Alaska

9 July

sampled transects today as part of continuing look at short term variation in transect use. It is obviously enormous, with large fluctuations in distribution of different species ~~over~~ over the transects. Not clear that pattern of habitat use changes, but density of a given species - e.g. *Melanotos*, recorded on a particular transect does. I wait tomorrow's results for a fuller examination of the patterns. Weather may play a key role, though perhaps not. Today's was classic - strong E wind, high clouds, temp ~~at~~ at 0700 = 38°F. Rising to 40° by 1500. \Rightarrow One astounding difference which has developed this year has to do with the state of the sea. For the last 5 days there has been open water off shore; today it is open as far as I can see, with only scattered floes spotting the seascape.

10 July

Yesterday's east wind has increased to ~ 30 mph, making censusing downright difficult. We therefore bagged field operations for the day. Spent ~ 0.5 hrs looking out to sea. *Rissa tridactyla* moving by regularly, as well as *Somateria spectabilis* and *Clangula hyemalis*. Curiously the *Clangula* are all moving NE toward the Beaufort. Must ask Dr. Iverson what the significance of that is, or indeed whether he is aware of it.

11 July

temp 38° at 0600, 38° at 1400. Wind moderates to 20 mph through day as we census the transects. # of ♂ *Melanotos* (and ♀ for that matter) impressive - see sp. account. The results of this intensive set of samples taken 8, 9, and 11 July are interesting: ① totals did not vary inordinately, although 9 July was depressed in overall density compared to the other two days (see T summaries) ② A hot spot one day was not necessarily one the next, with a few exceptions (see *Melanotos* sp account). In fact the totals within a transect over days varied appreciably. Habitat distributions of Dunlins and pectorals fluctuated somewhat, especially if the censuses on 5 July are examined also. Hypothesis: on each transect passes through areas frequented by a loose association of individuals which, now freed from nest sites, move about in the general area. On one day I pick up one of these localized groups, on another day I find another. Thus there appear to be changing distributions when in fact there are not. I'm not sure I like the implications for my sampling procedure. This warrants a closer look, both at the data and at the birds. Peregrine falcon today ~~was~~ hawking a *Pterodroma* and



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1977

Journal

Barrow, Alaska

July
(cont'd)

The South Meadow Lake flock of melanotos and fulvicares. Charming devil, but unsuccessful. Wind has been oppressively consistent there last 5 days, and with the sun out continuously the tundra is reaching a parched state almost comparable to August of last year. If this continues it will be far drier here than I've seen it.

12 July

0740-0940 censused grid 2. (=1976-G3) Temp 38° constant. wind strong, building to 20 knots from E. Bad enough to force me to quit before ~~the~~ censusing grid 1, which I will do tomorrow. The flock of double using the lower left part of the grid is forming again, as it has for the past 2 years. I first began to notice an accumulation there 8 July when running T5. But at that time it seemed largely to be molting, moody adults, flying in to harass me. I've been there most days since then; the flock is there now without my ~~any~~ encouragement, foraging in the high polygon system at (0,2) etc.

GRID TOTALS:

<i>Clangula h.</i>	1 ♂	9
<i>C. melanotos</i>	♀	2
<i>C. bairdii</i>		1
<i>C. alpina</i>		16
<i>C. pusilla</i>		5
<i>Ph. fulvicares</i>	♂	5
<i>St. parasiticus</i>		1
<i>St. longicaudus</i>		3
<i>Calcarius</i>	♂ ♀ J	0 3 1
<i>Plectrophenax</i>	♀	1

13 July

0515-0715 censused GRID 1. Temp 36° rising to 38. Steady 15 mph E wind. no clouds. This weather type has held now for 5 days. A drag. Sampling early today because wind has typically begun to rise ~ 0700-0900, and it makes censusing more difficult.

GRID TOTALS

<i>Pluvialis dominica</i>		4	
<i>C. alpina</i>		13	
<i>C. melanotos</i>	♂ ♀	14 13	Unknown 1
<i>C. pusilla</i>		5	
<i>C. mauri</i>		1	
<i>C. bairdii</i>		1	<i>St. longicaudus</i> 3
<i>Ph. fulvicares</i>	♂	5	<i>St. parasiticus</i> 1
<i>Calcarius</i>	♂ ♀ J	8 9 6	unk 2
<i>Passerculus s.</i>		1	

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1977

Journal

Barrow, Alaska

13 July
(cont'd)

The grid results from 1+2 are remarkably similar - consistent ~~even~~. They reflect typical conditions for several species in mid to late brooding period. alpina + pusilla are both protective, mobbing from afar in several cases (with recently hatched pusilla being the worst offenders). I saw alpina chicks on 2 separate occasions this a.m., both sets far from fledging. Non-broody alpina are also about, as I noted in yesterday's Journal. It appears that the lower reaches of GRID 1 are being used again this year, although the birds today were nearer the lowland interface on G1 than ~~it~~ was typical last year. melanotos are flocking, w/ some differences apparent this year, things about which I have commented previously, in particular the absence (complete) of broody ♀♀ and the large # of ♀♀ in flocks w/ ♂♂.

South Meadow Lake

14 July

1400-1530 at S Meadow Lake to collect ♀ melanotos for gonad condition. A large flock of melanotos, mostly ♂ but w/ ♀♀ mixed in is here today (see sp account), as they have been for the last several. All are feeding within 10 m of the lake shore, most in fact are within 30 cm, defending tiny territories at the edge. They are on the downwind side, feeding in the zone lapped by waves and spray. Wind is quite strong today, still NE ~~at~~ to 20 knots. Clear skies 38°. Oh for some calm and foggy weather! Lynne Stenzel went to the point today, looking and reports high numbers of Rissa, Xema, and Larus hyperboreus foragers all along the spit. Up to 150 Phalaropus fulicarius also present.

TRANS 1-5

15 July

0740 → 1320 fighting the wind again, sampling transects. Admittedly it has decreased, making work more enjoyable and efficient. Temp 32° at dawn, 100% fog, mud \in wind. By 0830 clearing until by 0900 stark naked sky with a building wind. 38° when I came in. Birds again seem to have abandoned higher areas, with most in low wetlands or mosaics of ponds and polygons. C. alpina is definitely congregating into flocks now, as has been suggested during the last several days. C. melanotos may be more clumped in dispersion also. They certainly were not as apparent in the uplands.

JP Myers
1977

Journal

Barrow, Alaska

15 July
(cont'd)

Pluvialis dominica now is molting and occurring in scattered flocks, using habitat similar to years past, i.e. upland meadows, gently sloping creek banks, etc. Decidedly upland in haunts. Nesting birds still linger on in a few places. But the milestone for the day was finding juvenile C. pusilla and C. bairdii. It happens every year. Pectorals still territorial by S. Meadow Lake (see opacent) but Ph. fulicarius not in EXACTLY the same site feeding on what must be the same objects.

16 July

0730-1100 on tundra by Gosline Ridge w/ Bonnie Bowen, scouting the area for Dicrostonyx; a least she desires for karyotypic work. We found much lemming sign, most of it obviously from this past winter's pop. One pile of tundra was green, certainly fresh. But otherwise there was very little to indicate current lemming activity. The first fog for many days (except yesterday's brief episode) grazed the tundra. 32° Temp brought out the cold, especially with a brisk wind. Birds?: baird + scuticellum juveniles, doublets ready to fledge (1-2 days) newly hatched Ph. fulicarius, Parasitic Jaeger chasing birds (juvenile Calcarius); C. melanotos ♂ and ♀ in same transect 3 unit along SW side of lake, but reduced numbers. Basically unchanged since yesterday.

17 July

0700-1030 censusing grid ~~at~~ 35°, very light E wind, zephyrs no less. Brilliantly clear until ~0910 when a fog rolled in. But clear again by 1000 with high ~~at~~ clouds over ~10%. Pectoral sandpiper density on G2 was SPECTACULAR:

GRID 1

<u>C. melanotos</u>	♂	41
	♀	14
<u>C. alpinus</u>		13
<u>C. naumi</u>		2
<u>C. pusilla</u>		1
<u>Ph. fulicarius</u>	♂	5
<u>Ph. lobatus</u>	♂	1
<u>St. longicaudus</u>		2
<u>St. parasiticus</u>		2
<u>Passerculus sand.</u>	a	1
	j	2
<u>Calcarius</u>	♂	4
	♀	2
	j	3

GRID 2

<u>Pluvialis dominica</u>	♂	2
	♀	60 ← !
<u>C. melanotos</u>	♀	19
<u>C. bairdii</u>		1
<u>C. alpinus</u>		19
<u>Ph. fulicarius</u>	♂	4
<u>St. parasiticus</u>		1
<u>St. longicaudus</u>		3
<u>Nyctea scandiaca</u>		1
<u>Calcarius lap</u>		3
		2

J P Myers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

18 July

1200pm landed in Deadhorse Airport after 2 hr ride on late super DC3 from NARL. Immediately appeared at Auk + NANA Corp to establish ourselves. Then went to see Steve Jones + Wayne Hansen at VE - met hostilely by Hansen, probably the man is feeling territorial. After talking with them briefly we went + checked in w/ Angus Gavin, ARCO. But before that I should mention Jones' predation rate figures - 65% of shorebird + passerine nests on his 250 acre plot taken by predators, primarily fox. Angus Gavin reports 90% loss for eiders on his transects. Amazing fox year. Trip out to West Dock after Gavin, largely car birding. The tundra is barren, remarkably so. We found few shorebirds save a large concentration (100+) of birds, most *C. pusilla* (up to 80) feeding on a gravel parking lot at the end of the West Dock road. Other spp present: *C. alpina*, *Arremona caudata* ⁻²⁰, *Calcarius lap.*, *Plectrophenax ur.* 2 pusilla juveniles. All appear to be eating dipterans - mosquitos, blown by the wind onto the gravel and trapped in its crevices. Ocean at west dock is a conglomerate of wind-driven floes with small cracks + patches of open water scattered throughout. ~~Many~~ Many (several hundred) *Clangula* lying on the water. 10+ *Sterna paradisaea* hovering along the dock. *Melanitta* spp apparent but unidentifiable to species off in the *Clangula* flock.

19 July

2 long walks today - one out NW beyond Buffy Puigo, the 2nd from Dock #1 ENE to the Sag Delta. Both w/ Dave Shuford. 0800 - 1130 out by buffie ping - classic Barrow weather w/ low fog lifting + dropping around us repeatedly. Easterly wind. Temp high 30's. We traversed a series of habitats including drying LCP, stream bank, low wet Carex sward, + upland tundra. The only hot spot for birds was where the stream, coursing between 3m banks for most of the distance we covered, suddenly broke out into the lowland Carex marsh. At the mouth was a flock of *alpina* (10+), one broody *C. himantopus*, 2 juvenile *pusilla*, and many *Calcarius* (later actually most dense along stream banks). A pair of *Stercorarius longicaudus* appeared settled locally, which is the area I had found a nest last June. Along the ridge where we walked Shuford + I found several small groups of *Pluvialis dominica*, typically at the crest of the ridge. One BROODY *CALIDRIS BAIRDII*. We were forced to return when Shuford decided to swim across a tundra pond (deeper than his hipboots). In the afternoon we went out toward the Sag delta, after a brief foray across the Sag River

JPMyers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

19 July

Bridge toward Drill site #9. Large herd of caribou (mostly ♂♂, 50+ animals) adjacent to road. The Sag River basin where we crossed was devoid of birds + uninviting, a mess of gravel worked over by man + river. Also largely barren were the sand dunes between docks #1 and the Sag River Delta. Beautiful flowers (yet to be identified) but w/o birds. We passed over a large - 1000 m² stretch of wet Carex aquatilis, Eriophorum rusciculatum, E. angustifolium low center polygon with very few birds. Only by the SW margin of a large lake where there are foraging shorebirds - 5 melanotos ♂, ~10 Arremonia, several (5-10 Xema), a broody Phalaropus lobatus ♂, a Ph. fulicarius ♂. In the dunes we saw almost no birds. Did spook up 8 Pluvialis dominica but they took flight (if they indeed were on the ground) before we saw them. A flock of melanotos passed over calling. Mixed flock of Somateria, mostly spectabilis but probably mollis and 1 possible fischii. Out in the ocean there were rafts of Clangula, a few Aythya (♂ marila plus one possible ♀ affinis). also birds looking like possible Melanitta. But poor visibility of most of the ducks prevented positive ID. Spermodolus eat composite flowers.

20 July

walked ~3 mi SW from S end of Big Lake, near Trans Hand 5, then leaving car at 0800, returning 1400. Much of route was incredibly devoid of bird life, but several pockets of activity were apparent. Weather 40-45°F, 100% clear w/a low fog hanging off to the North. Light wind from NE growing through morning but never above 15 mph. Temperature + wind remained low enough to keep even the ~~harsh~~ threatening mosquitoes down, although occasionally they rose to the occasion of our visit, particularly before 1100. Habitat: largely upland tundra mixed w/ frost bird habitat. Climbed 2 pingos, also wandered about in midst of a nice lake system with ~~water~~ a mosaic of water bodies ranging from 20 to 200 m diameter (or long axis). It was in this complex of water + low tundra that we found almost all the birds seen during the morning: geese (A.a.), eider, and ^{almost} all shorebirds: P. squab, P. dominica, C. alpinus - some w/ chicks, C. pusilla (1 pair mobbing by lake shore), C. melanotos - 5 or so broody ♀♀, less than 30 in several flocks of evenly mixed ♂♂ and ♀♀, O. leucogaster, C. himantopus - (mobbed by 1 adult), Limnodromus 5 - 2 small flocks of 10 or so, Ph. lobatus <5

JPMyers
1977

Journal

Prudhoe Bay, Alaska

20 July
(Cont'd)

a few broody Ph. Fulvica plus a small group (3) evidently not broody. Essentially our trip was w/o birds - even Calcarius - for the first 2.5 hours as we trudged over upland tussock tundra, and past an occasional small pond or low polygon area. In a few places Golden Plovers or Black Bellies made their presence known. One flight of melanotos - ~20 birds mixed ♂ + ♀ moved E. We climbed a pingo - ~~flower~~ flowering Dryas (past peak), Astragalus umbellifera, Papaver Mucroni, a few flowering but mostly quiescent Oxytropis. Several Calcarius foraged around the pingo. As we sat on the pingo a ~~herd~~ herd of 4 ♀ Rangifer plus ~20 ♂ moved by; the ♀♀ had one young with them and they kept going past us rapidly. The ♂♂ moved along and infant seemed somewhat curious. Antlers on ♂♂ quite large but still velvety. Foraging on Salix in the low center polygon centers. From the pingo to the SW we were able to see an extensive mosaic of ponds & lakes with thin isthmuses connecting them. Already before the pingo we had seen that away from lake shores there was nothing, while near the 1st lake here we hit just before the pingo there had been broody ♀ melanotos. So we trekked on down to the pond/lake/isthmus mosaic. It was a veritable shorebird CENTER, with all the species listed above. Each margin w/ Arctophila had one or 2 phalaropes of either species. Scattered small groups of pectorals, ~~breedings~~ both broody and not broody, limnodromus. But curiously we found C. alpina and C. pusilla in only one place, the alpina on the lower side of a pingo and the alpina nearby (pingo ³⁰ m from lake shore). Both were broody. Larus hyperboreus with one downy chick. Caria arctica probably w/ nest. Anser alligrons w/ young. Walking back through the mosaic we passed through an area w/ low but regular numbers (i.e. 1 ♀ melanotos every 100-300 m etc). Then suddenly we stumbled in to another center - 1 ♀ melanotos, 2 pairs of alpina ^{broody}, 1 limnodromus ^{broody}, 1 Pluvialis dominica, 2 juveniles pusilla, 1 Ph. Fulvica. Habitat was not strikingly different from other small ponds in the mosaic. But the birds were markedly concentrated there.

EVENING - talked w/ Wayne Hansen. His hostility seemed reduced this time. Learned that security likely to become more strict. Avoid Joe Morgan at ARCO; best strategy to make access inquiries at management level above turkeys on oilfield. Birdwise one incredible possibility - a breeding limosa fedia at Franklin Bluffs. I want to see their stratigraph. High nest mortality there, on order of 70%, mostly due to July 3-4 storm.

JPMYers
1977

Journal

Prudhoe Bay, North Slope, Alaska

20 July
(cont'd)

But a heavy fraction also lost to avian predators. Low densities: over 100 or so ha they found 8 melanotos nests, 12 *Calenivus*, 2 *fulicarius*, a few more of other spp. I am somewhat skeptical of the accuracy of these densities. With reference to Prudhoe Hansen tells me that melanotos do NOT vary in density to any great extent, at least over the last few years (1971 on).

West Dock → Pt. Storckson Dew Line

21 July

0900 → 1700 in field between Pt. Storckson and West Dock, scouting the habitat w/ Dave Shuford. Weather began ominously in a sense, quite pleasantly + thereby threatening for mosquitoes. But a cool breeze and midday fog kept them down, and proved only slightly chilling for us. We traversed a diverse array of habitats, ranging from coastal salt marsh to lowland *Carex* pond/lakeside heavy on *Arctophila* and *Eriophorum angustifolium* to dry creekside ridge and upland tundra. As I discovered in late June, ~~and~~ Pat Webster's description of this area as a Barrow analog is appropriate. But blooming *Soyas* kept me aware of the fact that we weren't at Barrow. Here the *Soyas* and *Papaver* are much more widespread in wetter regimes than at Barrow, growing in much ~~barren~~ moisture habitat, as well as higher ridges. As yesterday, the general theme of the outing was absence, but not as stark as yesterday. This was probably a result of our never spending extended, uninterrupted periods in pure upland tundra. But not entirely, because even there birds could be found (*P. dominica*, *C. alpinus*, *C. lapponicus*). We went through one very extensive lowland mosaic of ^{Arctophila} ponds, lakes, + *Carex* marsh, ~1500 m NW of the west dock parking lot. This area had relatively high densities of expected species - *C. melanotos*, *C. alpinus*, *C. pusilla*, *Ph. fulicarius*, *Gavia s+a*, *Somateria spectabilis*. Very low polygonization here, instead a high % surface water even now this late in a dry season. To my surprise there also were *Pluvialis squatarola* - a flock of 5, and *P. dominica* - several small groups that represent 1st flock of *P. squatarola* I've ever seen on the north slope. Also explored a large salt marsh extending inland several hundred meters, bordered on the upland side by a wide swath of what I interpret to be salt-burned normal tundra (a blackish mass of dead moss + *Carex*). Saw perhaps 2 *Calenivus* in all of that much - no shorebirds. From there we passed into a flat polygon region similar to Barrow drained musk meadow. Few pajavitos graced the land. Only within about 700 m of Pt. Storckson Dew line station, just after crossing a *Puccinella* slough,

JPMycus
1977

Journal

West Dock → Pt Storckson, Prudhoe Bay, Alaska

21 July
(cont'd)

in which a few Ph. fulicarius flocked, one C. bairdii ♂ mobbed as if w/ chicks, and a C. pusilla mobbed, did we begin to pick up birds again. There + to the north small flocks of Melanotos emerged out of the marshes, several groups of fulicarius tooted about, etc. Met two people working for Dick Dirkson - Mike Cook and Fred?, undergrads at Iowa State. They were enjoying their work, obviously trying hard, but suffering from isolation in a ^{place} biologically unlike any they'd ever been in. Large herd of caribou - 35 ♀ and 16 young fooling around the station, isolated ♂♂ or in small groups nearby. From the DEW line camp we walked west ~1.5 km. w/ Fred + Mike → they wanted to show us some fox den sites + buffy display areas. Buffies have apparently used the Storckson upland stream banks now for 5 years running. Habitat looks very similar to area in western reaches of oilfield (By Kup River). At 1500 we took off, heading directly ~~to~~ back w/ little bonfollery. 1700 arrived at West Dock.

This hike, as well as others during the last several days, indicate that in 1977 Pluvialis dominica was as common or more so than P. squatarola in the oilfield area. Such a statement must be made carefully at this time of the year because of migrant golden flocks - something regularly encountered. ~~But~~ Golden Plovers appear to have been more common as breeders this year here than were Black-Bellied Plovers. I say that now on the basis of the rate at which we ^{incur} ~~exposed~~ the wrath of broody adults ~~of the two~~ of the two Pluvialis species - golden have many more broods around now than do Black-bellies, - and also from our preliminary transect work in June. Densities of P. dominica are nowhere as high here as they are at Barrow, but they are more than one would expect from Morton's work.

Deerhorse Airport

22 July

0900 to 1200 went through area in which transects 6+7 were placed last month, and was astounded - appalled - to find ^{no} ~~that~~ birds in what then was the most productive habitat. It was enough to make one speculate about the cumulative effect of nest predators + late storms on breeding ~~success~~ ^{success}. It was particularly stinking because the current distribution of birds - ~~in~~ in areas still wet + around lakes would lead me to predict at least a few individuals on this transect. The weather, by the way, was ~~not~~ poor - with a strong E wind, low clouds and fog, temperature in the high 30's. Typical Barrow. After reaching the end of the transects we cut across along the ~~a~~ NE side of a lake,

JPM Myers
1977

Journal

Deadhorse Airport, Prudhoe Bay, W. Slope, Alaska

22 July
(cont'd)

and then headed counterclockwise along the lake. For the 1st third of this wild gyration we were in low Carex marsh - saturated or standing H₂O., extensive lakeside stuff. Not even any phalaropes. But one juvenile - recently fledged (2-3 days) - Calidris himantopus - putting this bird among the definite local breeders. Found another juvenile C.h. w/in 300 m, even more recently fledged. Along this periphery we did come across juvenile pusilla in regular low numbers (1-2 every 300-500 m). As we cut S along the far side of the lake the rim rose, or rather, the tundra ~ 50 from the wet edge of emergent vegetation rose to a slight sloping rim. Began picking up a few phalaropes, and then the Tundra EXPLODED w/ a flock of mixed shorebirds using the SW margin of the lake + its surrounding habitat.

15-20 juvenile C. pusilla (no adults), 5 C. alpina, 30+ C. melanotos - almost all ♀, juvenile + ♂¹ Ph. fulicarius ₂ alpina ₃ BROODY LIMNODROMUS SCLOPACEUS. The C. melanotos adults + juveniles were also there. The flock was spread over 100-200 m on the SW side of the lake - i.e. the downwind side.

Will it's time for another general review of the Prudhoe avifauna, covering the period 18 July - 22 July.

Gavia archia - common nester over oilfields on larger ponds/lakes. uses small islands. Nests quite close to road system. ponds tend to be deeper than G. stellata (see below)

Gavia stellata - common nester along road to West Dock + on Spin road in a few places. not inland. uses large ponds w/ Arctophila margin, emergent grasses.

Olor columbianus - rare nester at best. need to learn what densities Gavia has determined

Branta canadensis - many pairs w/ broods seen along larger lake shores on Spin Road

Branta bernicla nigricans - several groups seen along larger lakes on Spin Road, w/ broods. adults also out along West Dock road

Anser allifrons - few pairs seen, those detected have broods - lowland lake margins

Anas acuta - isolated ♀♀ flying around, usually w/ others

Clangula hyemalis - a few still seen on tundra ponds. hundreds in marshes + offshore littoral in large flocks. ♂♂ and ♀♀.

Melanitta perspicillata - a few individuals seen scattered in Clangula flocks offshore

Aythya marila - a few offshore in Clangula flocks.

Somateria spectabilis - scattered ♀♀ on tundra in lowland ponds bordering large lakes

JPM/Myers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

22 July
(cont'd)

[S. spectabilis cont'd] no sign of broods. Gavin reports 90% nest predation by foxes along his transects. One flock of ~~20~~ ⁷⁵ ~~20~~ moving overhead by mouth of Sag. Largest group of ♀♀ seen 14 birds, mixed w/ S. fischerii. All ♀♀ on tundra

Somateria fischerii - 3 ♀♀ seen in 'large' flock (total 14) of ♀ eider, but were S. spectabilis. one possible ♂ in overhead flight of ♂ eider (UTS birds)

Lagopus mutus - 2 ^{distinct} ~~separate~~ ♀♀ seen along Buffie Stream near Buffie Pingo, one with ♂. both ♀♀ acted as if w/ nest or broods, giving distraction call + display, but not very intensely. Saw hatched as 26 June (see Journal) - UTC, BT

broody - LTM, LTM, UT, UTC
+ flocks

- Pluvialis dominica - ^{LTM, UT, UTC, LTM, LTM} regularly encountered throughout oilfield in flocks up to 10 birds, but at low frequency in eastern lowlands. Flocks foraging in uplands and along several rivers. Broody adults apparent at low density in uplands toward Kup River and south of Big Lake. Obviously molting, with even broody adults very messy around face. ^{Flocks seen w/ Arremon, C. melanotos}

flock - LTM
displaying UT

P. squatarola - uncommon. one flock ⁵ seen in lowlands toward Pt. MacIntyre. One displaying ♂ chasing over uplands S of Big Lake. this bird in good nuptial plumage, butterfly call. No broody adults. ~~seen separately~~ ^{almost exclusively}

flocks BT

Arremon interpres - adults seen coastally ^{almost exclusively} in flocks up to 20 birds. Biggest flock foraging on gravel pad w/ C. alpina, C. pusilla. Also seen flying over tundra once in mixed flock w/ Horrelin dominica BT,

broody - LTM, E1, LTM
flocks same + UTC

^{Calidris} C. melanotos - ♀♀ obviously broody in many different ~~low~~ low wetlands from Pt. Storckson to as far inland as we went (S of Big Lake). ^{broody ♀♀} Exclusively in lowland wetland, usually along lake margin near extensive emergent vegetation. Small flocks also encountered regularly but not anywhere near Barrow frequency. Exclusively in lowlands along lake sides in lowland tundra - pond/lake mosaic. Largest groups on SW sides of lakes. Few ♂♂ remaining, most flocks ♀♀. no juveniles yet.

BT, UT =>

C. bairdii - 2 broody adults found, one by Buffie Pingo along rim, the other out on slough near Pt. Storckson. Later a ♂ because of display.

C. alpina - encountered ^{almost exclusively} in flocks of 5-10 adults very patchy over tundra, usually

JPM:ms
1977

Journal

Produce Bay, W. Slope, Alaska

22 July
(cont'd)

PC, UTC,
LTM, LTM

[C. alpina cont'd] at interface between uplands + lowlands - e.g. 1st flock found where Buffy stream floods out into lowland drained lake basin W from Buffy Pingo. i.e. at the low Carex marsh below the tundra which defines a border between the marshes and uplands. ~~But~~ Other flocks encountered in similar conditions, usually accompanied by fledglings. But also found in more ~~open~~ polygonized meadow (Eriophorum angustifolium flat center polygons) out by Storkersen, in mixed polygon/pond system (less frequently) and along lake margin. One broody pair on slope of Pingo S. of Big Lake.

UTC, LTM, LTM

C. pusilla - few adults still evident except in one large flock (>50 birds) feeding 18 July on gravel by west dock. ^{one broody pair at base of pingo south of Big Lake} juveniles widely distributed in some areas, but totally absent from others. If any pattern is discernable it is that near large mosaics of lakes + ponds you may find ~~just~~ juvenile pusilla in low numbers in any of the inner habitats present.

C. himantopus - one broody adult W of Buffy pingo in lowland Carex marshes. 2 juveniles near ~~Deadhorse~~ ^{Deadhorse} (heavily flying), the around lake margin, one in LTM the other UTC.

Tryngites subruficollis - NONE

Limnodromus scolopaceus - one broody pair mobbing us by lake side at Deadhorse E1 vegetation. otherwise only scattered flocks - very few, - around lake margins in lowland wetland/lake mosaic. ~~no~~ all adults.

LTM-
~~UTC~~ - E1

Ph. fulicarius ♂♂ in small groups or single, not found except near expansive lowland wetland/lake mosaic in emergent vegetation. some broody ♂♂, one large flock of 40-50 seen at Pt. Storkersen. none seen literally save a ~~few~~ 3 ♂♂ in coastal slough by Storkersen. 2 juveniles seen w/ adult ♂♂ + flock of P. melanotos ♀♀.

LTM-E1

Ph. lobatus - a few broody ♂♂ encountered regularly in lowland wetland/lake mosaic. one flock of 3 ♂♂.

Stercorarius parasiticus - no obvious sign of breeding. encountered at low density in UT, UTC.

Stercorarius longicaudus - moving through, perhaps settled in a few places toward Kup River. one displaying bird near location of 26 June nest.

St. pomarinus - none seen

2000

J P Myers
1977

Journal

Providence Bay, Alaska

22 July
(cont'd)

Larus hyperboreus - small groups ^{adults + subadults} near oilfield camps. ~~seen~~ mobbing adults along a few larger lake shores. One chick seen, still very downy 20 July.

Xema sabini - ~10 adults along SW shore of one lake near mouth of Sag River in dunes.

Sterna paradisaea - adults foraging by West Dock in littoral. 410.

Myctea scandiaca - fewer than 5 seen since 18 July

Corvus corax - seen regularly in oilfield. no hint of breeding

Alcaurus lapponicus - a few adults still feeding young, carrying food. very reduced in density compared to June, largely absent from most of tundra. A few concentrations found, particularly along rims above wetlands. many foraging on gravel pad by west dock. ♂♂ molting rectrices. juveniles as common or more so than adults.

BT, PC, Tm

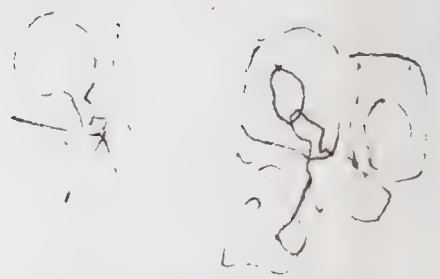
Plectrophenax nivalis - only near buildings. fledged juveniles present. adults molting heavily.

23 ~~at~~ July

Walker, Walker, Brown, + Everett, Dixie Morray, Al Johnson, Dan Larsen, et al blew into NANA today, after a rousing ~~but~~ haul road trip and enroute to Fish Creek, where they will be doing post-drill recovery work. Actually not all of them go: Walker + his assistant, Noxe ? will remain, and we plan to learn something about plants from them. But unfortunately the mailbox of a Jerry Brown over dominates this place now + interferes with work. Finally in late afternoon the cloud managed to reach West Dock + the Barrow analog - I found that my Barrow analog was a bit misplaced from places, but equally analogous. Broody Calidris bairdii there along the coast.

24 July

morning went to Pad's 3+9 w/ Walker, Webber, Everett, and Larsen. Turns out the area is old dunes overgrown in low places by Carex aquatica and in upper places by a barren tundra type, with heavy frost heaving dominated by Dryas, Papaver, Androsace, Silene acaulis, Pedicularis capitata, etc. No birds save a few Pluvialis dominica flying by. During the afternoon Dave Shoford and I went out to the Kup area to lay transects, only to be supplanted by surveyors intent on destroying our Inupiaq nesting area. So we returned to the Deadhorse vicinity + placed 5 0.5 km transects in area where trans 6+7 had been previously. One frustrating fact: as far as 1.5 km from road.



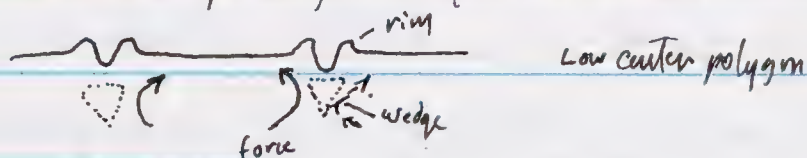
J. P. Myers
1977

Journal

Produce Bay, U. Slope, Alaska

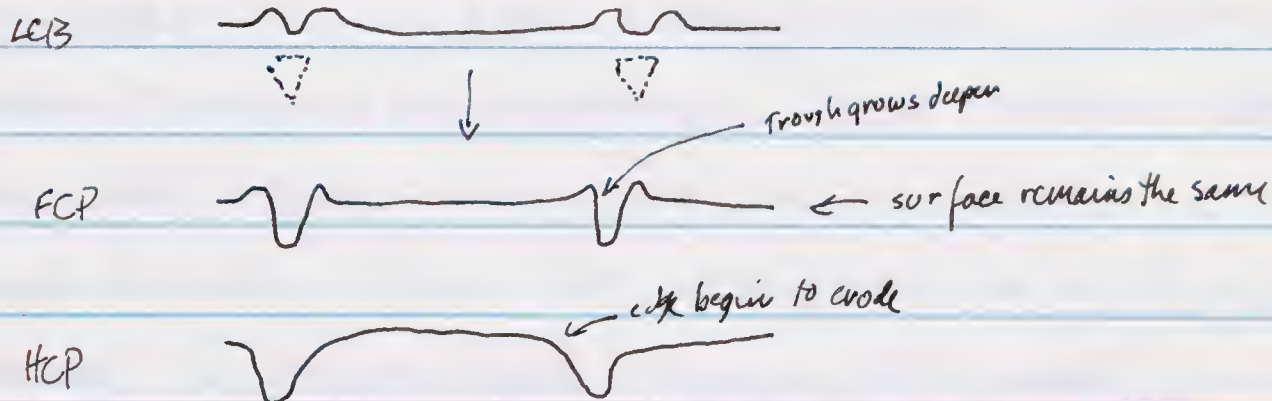
24 July

on downwind side are kicked up a dent storm with every step. Brief transect description: ① runs through mixed polygons and ponds (old tran 6). ② emergent veg along NE side of large lake running into upper wetland with ^{U4} MZ filled low center polygons. ③ flat center polygons of ^{MZ} U4, running past several lakes, ④ same ⑤ ^{along sw} rim of lake ~~along sw~~ extending out into peninsula or isthmus between two lakes. In general there are mosaic upland and lowland wetland transects, and should be rich with *C. pusilla* during the breeding season. Flocks of *Pluvialis dominica* moved past toward the east as we set out the transects. ^{JUVENILE} *C. pusilla* quite apparent over tundra. Talked w/ Kaye Everett about polygon formation. Once you have the ice wedge pattern [produced via the Lichenbraud model w/ desiccation of virgin ~~soils~~ surfaces inducing polygonal cracking whose dimensions are determined by the parent material] the following sort of succession sets in:



① rims continue to grow due to ice-wedge growth forcing material up + in

if thermal erosion of ice wedge begins or thermocasting due to various agents such as microbial drawing, etc.:



So the production of HCP is not due to increased height of center but rather the increasing depth of the troughs. Everett is not willing to accept the thaw-lake cycle anymore (the reason for oriented lakes on the coastal plain) more suspecting their orientation may be due to geologic fracture patterns in the bedrock. J. Brown scoffs at this notion. Kaye is predicting a bimodal distribution in orientation of the long axis, with a minor peak 90° from the one so evident even to the untrained eye at -90° from prevailing wind.

25 July

spent entire day in field w/ Skip Walker, learning about his Produce vegetation scheme, learning what to look for in *Carex*, identifying various plants, and being frustrated by others. Refer to

JPHyons
1977

Journal

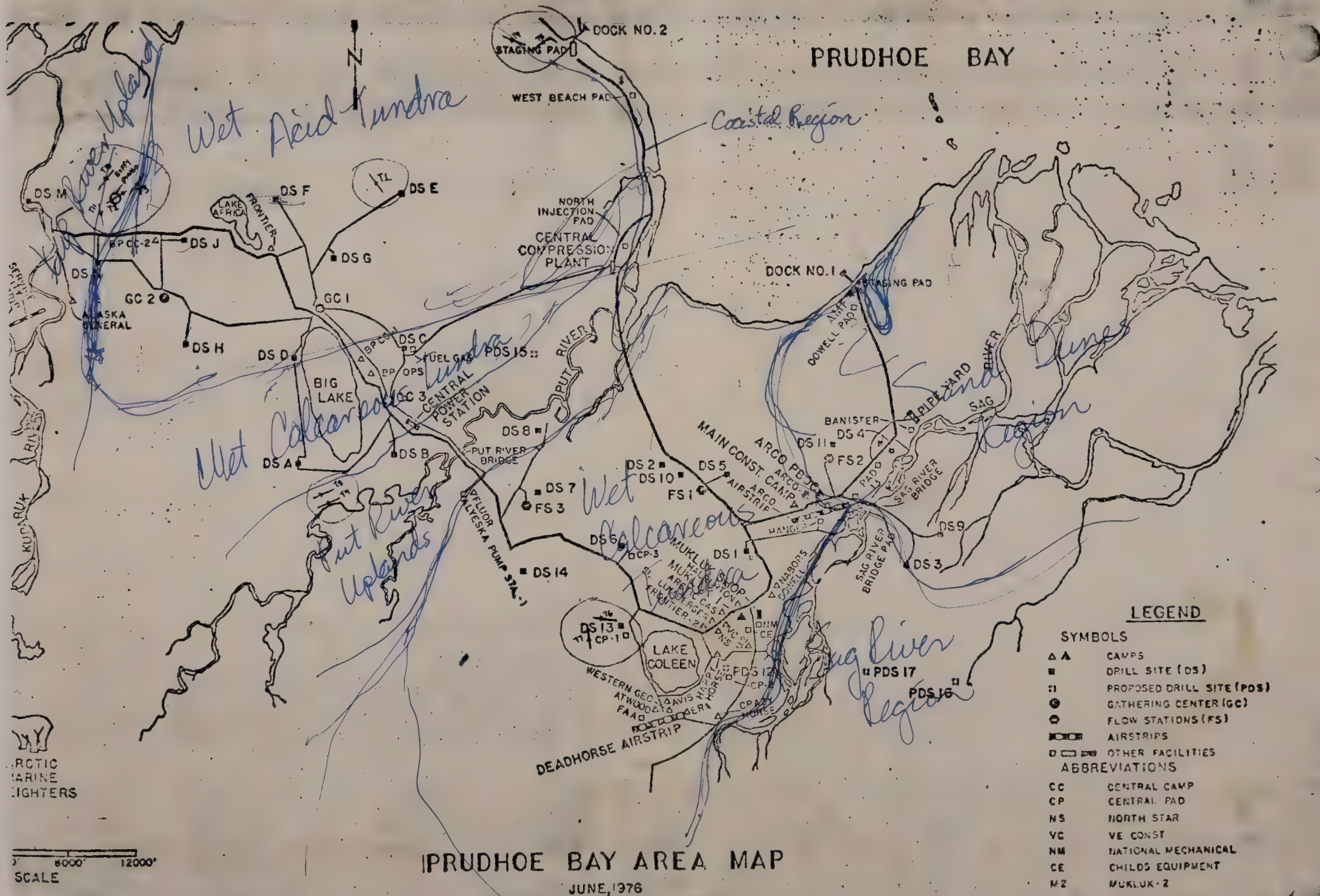
Prudhoe Bay, N. Slope, Alaska

25 July
(cont'd)

Rev my 26 June notes for listing of his vegetation units. It looks as if we will be able to deal with most of them, although he has obviously brought a different eye to the problem than that of an ornithologist. The distinction, for example, between M2 and M4 seems to rest largely on the basis of the presence of 2 mosses: M2 = Drepanocladus brevifolium, M4 = Scorpidium scorpioides. Skip has difficulty of time telling these 2 spp apart. But M2 varies (given this line between M2 + M4) between a fairly rich stand of Carex spp, Eriophorum ang., Pedicularis sudetica, Salix arctica, Salix lanata, Saxifraga cernua, etc (including Drepanocladus plus other mosses) to something barren save a mat of Drepanocladus, Carex spp. and a few scattered herbs such as P. sudetica. Its physical appearance at this end of the spectrum is essentially - virtually - M4, except for Drepanocladus. I may change his categories a bit to correct this. Otherwise most is straight forward. He may be splitting too finely in separating out the Pad F sites (M1, U1) because of the increased range of lichens - particularly Ochrolechia there. Birdwise today there was little of note. flocking Pluvialis dominica continued to move past. Juvenile C. pusilla are on the tundra, and beginning to appear in groups along lake shore margins. ♂ Ph. lobatus are flocking but also some still mob. ♂ Ph. fulicarius largely gone, with juvenile fulicarius becoming more apparent. C. melanotos is uncommon, with occasional ♀♀ coming in to mob. no juveniles yet. C. himentopus has appeared in a flock by Dead Horse. Weather today was sunny with a ^{mod to} strong E wind. temp ~ 45-50°.

26 July

spent another day in field w/ Walker. weather atrociously Barrowesque, with fog and strong E wind dominating. One saving grace compared to Barrow was warmer temperature - in mid 40's so that properly garbed the wind did not suck it out of you. We visited Drill site 2 - [the Pot River], West Dock, and East Dock. Most of time went to measuring thaw depths, with both Dave + I helping. I mixed this with wandering around collecting Carex spp. Birding was next to impossible with the wind and fog. there wasn't that much around anyway: flocks of Pluvialis dominica, Calidris pusilla and Phalaropus lobatus. Spent the evening discussing the Prudhoe area with Skip. I convinced him it was botanically useful to think about "regions" in the Prudhoe Area, and to try to delineate them. He did so on map on opposite page. 3 river regions - Sag, Pot + Kup, with the first somewhat confused by the extensive sand dune dominated area, and still a distinct region: sand dunes. There are 3 other regions.



JPM Myers
1977

Journal

Proville Bay, N. Slope Alaska

26 July
(cont'd)

Wet Calcareous Tundra, Wet Acid Tundra, and Coastal. The former two are similar ~~macrohabitat~~ topographically but differ in vegetation (structure subtly) because of loess from Sag River on Wet Calcareous tundra. The coastal strip includes littoral tundra plus a small (?) zone slightly inland still dominated by the winds off Provville Bay.

27 July

went out and did it! - placed 15 0.5 km transects ~~near~~ in the western region: 5 near Butty Pingo (which I learn is known as Michelle Pingo), 6 near Pad F, and 4 south of Big Lake. Weather gorgeous, verging on the hot end of tolerable condition, with mosquitos hovering constantly during the afternoon. Wind light easterly, no clouds after a fog burned off first thing in the morning. Brief transect description: 6-10 in the ~~Sag~~ Kup Uplands: (6) along Michelle Creek with much Barren tundra vegetation; (7) running from Michelle Creek east over Michelle Pingo, almost all upland or pingo; (8) not actually placed as it will lie on the Butty grid - will be mostly upland tundra; (9) goes from Michelle Pingo uplands W down a ridge into the uppermost ~~Sag~~ Kup River terrace; has a lot of beak pond; (10) along Michelle Creek on W side then heading more westerly ~~over~~ across ridge - takes a jog at 5 11 → 16 in the wet acid tundra of Pad F: (11) from parking lot SW across polygonized ground (mostly FCPad low HCP); (12) split ^{at 5-50} ~~into~~ beginning on a pingo, hitting another pingo, and then heading ~~quadrant~~ from NE lowland lake margin into FCP's; (13) polygonized tundra; (14) polygonized tundra along a slightly raised ridge; (15) begins on FCP ridge + plunges off through lowlands very similar to Barrow (16) begins by going across Arctophila ponds, then up onto lake ridge. 17-20 Put river uplands: (17) ~~from~~ over uplands with some *E. vaginatum* to Put River; (18) SW along edge of Put; (19) from lake region by Put along river terrace up onto low ridge; (20) along ridge w/ *E. vag.*, jogging to east to avoid squeezed up lowland. Bird scene - we found several concentrated bird areas, typically but not invariably in disturbed (flooded) lowland. Significant members: ♂ Northern Phalaropes - many in flocks; juvenile *C. pusilla* - most abundant shorebird right now, in flocks up to 40 foraging in exposed mud areas; ♂ adult *Pluvialis dominica* - flocks in many places on uplands, occasionally into lowlands; adult *Pluvialis squatarola* - one flock of 15, often small groups in lowlands; juvenile *Phalaropus fulicarius* not abundant yet but building; ♀ *Anas acuta* - saw 30+; broody ♀ *melanotos* still apparent but no appreciable flocks; *C. himantopus* 5-10 using ponds near NANA.

28 July

placed transects 21-27 out by the west dock. Left NANA ~0800 but delayed in transect placing by

JPMyers
1977

Journal

Prudhoe Bay, N. Slope, Alaska

28 July
(cont'd)

absolutely stupendous juvenile Calidris pusilla movement. Literally 1000's of these buggers, largely by the coast but also inland. This began w/ ~180 C. pusilla juveniles by NANA in a seepage pond by the road, there along with a mess of Phalaropus ~~ph~~ lobatus adults (~80), Calidris bairdii (6), C. melanotos (7), C. himantopus (adult + 2 juveniles). ~~also~~ Shoford and I censused the area:

<u>C. melanotos</u>	7	
<u>C. alpina</u>	1	
<u>C. pusilla</u>	180	~ .75 ha
<u>C. bairdii</u>	46	
<u>C. himantopus</u>	3	
<u>Ph. lobatus</u> ♂	80	
<u>Ph. fulicarius</u> j	5	
<u>Calcarius lap</u>	10	
<u>Motacilla flava</u>	1	

But the real surge appeared coastally north of the central compression point, continuing as far as the ~~P~~ Puccinella marshes north of west dock (as far as we went). Flocks of juvenile semipalmus scattered everywhere, flocks ranging 50+ birds, foraging in Puccinella marsh, foraging on the gravel road top, foraging ~~in~~ along lake margins in the coastal vicinity. We placed transects at West Dock, reaching inland NW ~ 2 km. The pusilla were restricted to the very coastal strip, largely ^{within} ~~within~~ 500 m. One extraordinary location was along the south bank of the Pot river in an area where salt water had killed an expanse of Carex lawcentur polygons. It was strewn with C. pusilla, many behaving aggressively, actively defending sites 1-2 meters in length. ~~A~~ Saw some classic calidridine aggressive postures, including a crouch, wing out, etc. [see spec. account.] Golden Plover adults are now very conspicuous also - occurring in both upland and lowland habitats but weighted toward upland.

~~Phalaropus~~ Phalaropus squataria are also moving in, ~~large~~ all adults, exclusively in low wet places.

Transect description (21) - begins near west dock parking lot + goes west, starting on flat center polygons, onto small rim + plunging into a marshy lake basin w/ Arctophila ponds. Carex aquatilis, Hypnum tetraphyllum, Ranunculus pallasi. Much Salix pulchra on fcp's contrasting markedly with all other transects before today except the PadF series (which Skip Walker attributes to acidophilic tendency of S. p. and calcareous nature of most Prudhoe tundra due to aeolian deposits). ~~At~~ (22) begins near end of (21) in lake basin + rises abruptly on rim after passing through a lot of barely polygonized marsh.

Rim is Salix rotundifolia. It then goes through a batch of frost boil tundra with noticeably more calcareous

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1977

Journal

Prudhoe Bay, Alaska

28 July
(cont'd)

characteristics (23) starts at a tundra pond + after a brief swatch of calcareous frost heil goes into a low wet filling lake basin full of Carex aquatilis, Arctophila fulva and the like. real rims + mounds (compared to 21). (24) also pushes through this mix of pond + Carex marsh, ~~both~~ and then rises over a rim only to go down again in a Salix - Carex drained meadow, ending by a tundra stream. (25) takes a high route back toward the parking lot, beginning on a snowbank of finely polygonized tundra, ^{entering a drained Salix - Carex meadow} + then remaining in a mixed upland-lowland mosaic w/ a few lakes and many flat center polygons - Thus the west dock transects meander back + forth from upland to lowland, downrims + over small ridges, spending a lot of time in the lowlands. It is all very Barrowesque - not only is Salix pulchra about in abundance, but Saxifraga foliolosa is in LCP drained centers (not even on the Prudhoe veg. list), Ochrolechia (a lichen) is on Dicranum lumps (a moss), much like some of the finer Barrow shorebird habitat. (26) begins just off the road down the coast always, traversing an isthmus between 2 large lakes. This transect promises to be a hot one. (27) - really questionable about whether to include this - it runs along the N slope of the Pit River near its mouth across a swatch of beached tundra beached by salt water. In other words it's really a littoral site.

Mosquitos today were quite charming. The few sylvans failed to keep themselves down, and a warm sun merely let them fly that much more energetically. They were a decided put. We went out at 2130 to photograph on the SE side of the Sag River. Unfortunately the light was poor by the time we got going, so did little successful (except perhaps a series on environmental disasters in Prudhoe Bay, and a few of Polemonium boreale and Pedicularis capitata) But there were spectacular #'s of caribou (by our perspective of a scattered bull here or a calf there) with a herd of ⁴⁰⁰⁺ mosquito harassed bulls + cows w/ young moving through ²/₃.

29 July

At it again - placed transects 28-40 (!) today, finishing off that saga of Prudhoe tundra biology (climatic) weather gorgeous, the hot yet because it was sunny yet blotted by just enough of a consistent, cool ocean breeze to keep those mosquitos down! Only on a few occasions walking downwind were we assaulted, and never with the ferocity of yesterday. [Of course that didn't stop my ~~birds~~ bites from boasting their presence]. Anyway, birdwise a remarkable change occurred, with many fewer juvenile C. pusilla along the road toward west dock. We saw fewer than 300 total between the Central Compression Plant + west dock. Transects 28-34 are by Drill Site 2 - 28-31 on the ~~west~~ west side of the road, 32-34 on the east: (28) cuts across

JPMyers
1977

Journal

Prudhoe Bay, Alaska

29 July
(cont'd)

a mesic tundra system of FCP and LCP with typical U3 veg on the ups and M2 in the lower sites. Ends by the Pot River, picking up a patch of ~~area~~ streamside snowbank in the process. (29) goes across a mesic meadow on a river terrace, poorly polygonized, and then rises into an FCP then LCP ~~area~~ system, reaching wetter proportions than 28 to the extent of having some M4 LCP's. (30) races up along the Pot River highlands, invading U2 + U3 upland tundra but ending in the stream, flanked by a smattering of Dodecatheon frigidum tundra streamside. (31) returns toward ~~the~~ DS2 by angling across a river-side ridge, very little of it camping on the river itself, but under its influence. Several units cross a well drained stream hollow. (32) [on the east side of the road] is old fashioned M4 LCP, but ends by heading up a Papaver ^{- Dryas U3} covered ridge. We had a bit of problem placing (33) and (34) because of vehicle tracks and an old (1969) road as well as huge electrical wires. (33) goes from the edge of the Papaver ^{Dryas U3} ridge abruptly into a fine looking mixed mosaic of large ponds + well defined polygons. Promises to be hot stuff with its Arctophila cover. (34) covers LCP's dominated first by M2 then M4 as it moves into a pondier area. Not tremendous vertical relief (34) is split to avoid the disturbed road site. (35) → (40) are in the Sag Dune region: between Surfcoat camp + East dock: (35) on ^{wet} ~~east~~ side of road beginning on dry ~~Androsace~~ Androsace, Chrysanthemum, Sedum stabilized dunes down into Carex marsh + an Arctophila pond

30 July

0800 - 1600 placed a tracking grid on Michelle (Butterfly) Pingo.

31 July

moved T27 to Pad 9 area along transects 39, 40. I decided that ^{salt-}burned littoral tundra could manage without a transect ~~for~~ for another year. 1300 flew to Burrow. 3 Tryngites ♂ by the Lonely airport.

ADDENDA to 22 July species description (see journal)

Gavia arctica - non breeders accumulating in coastal ponds

Gavia stellata " " " " " , abundant

Anas acuta - since 22 July major influx of ♀♀, especially 28 July. Flocks up to 25. foraging in emergent grass on lake. favor coastal strip but ~~are~~ quite common

Anas platyrhynchos 2 ♀♀

throughout.

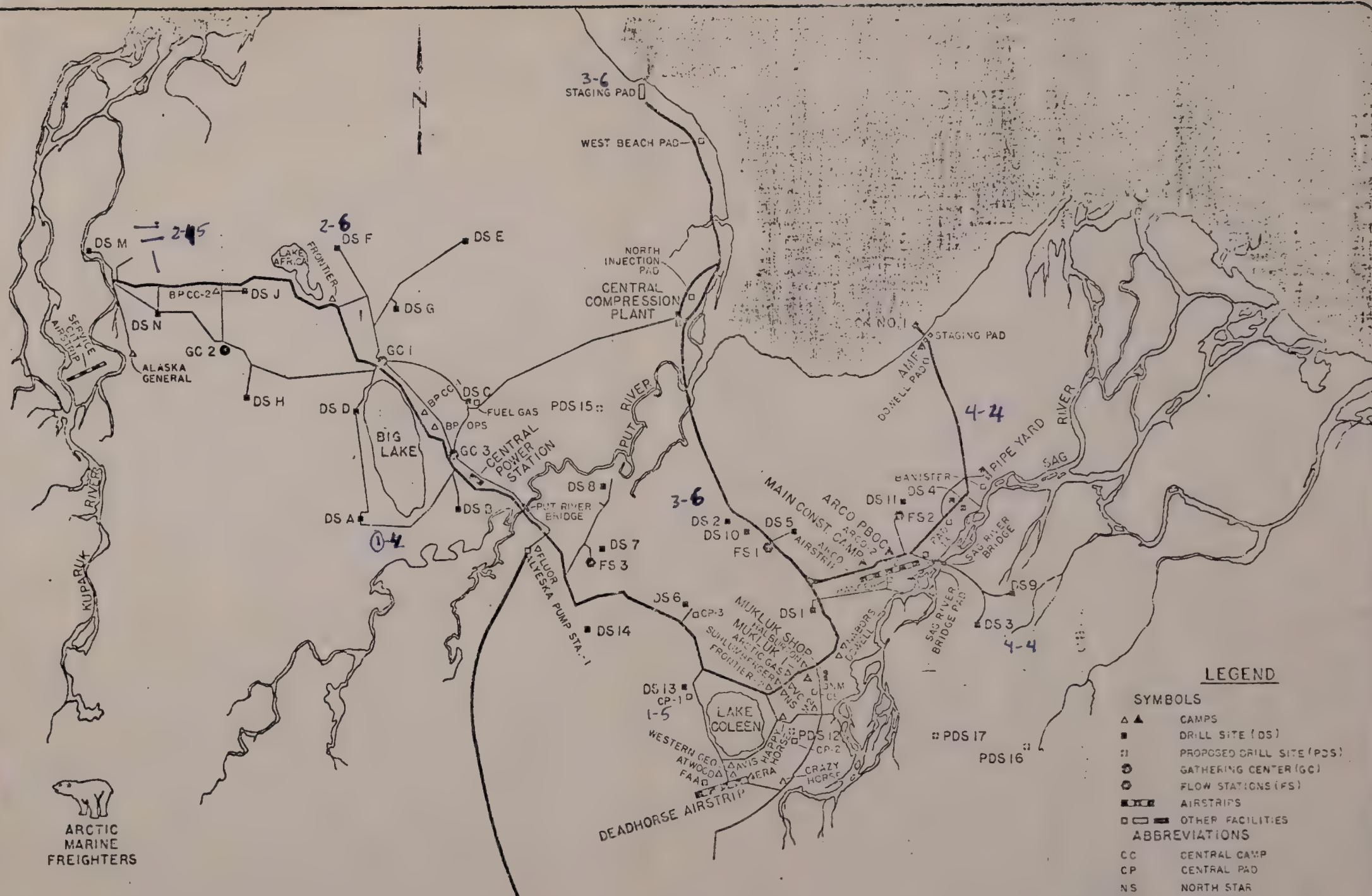
Somateria spectabilis - no ♀♀ on tundra anywhere

Somateria ♀ mollissima - 2 ♀♀ w/ u & chicks along ocean by unit dock 28 July

Pluvialis dominica - migrating in large numbers now, w/ adults in flocks up to 30 birds

throughout the oil field. Prefers upland areas but flocks also seen in low wetlands

Found in stabilized dunes - Flying flocks all headed east. At least 1 group seen every



JPM Myers
1977

Journal

Prudhoe Bay, W Slope, Alaska

31 July
(cont'd)

Pluvialis dominica (cont'd) hour on tundra. very few broody adults left. ^{none seen in full} ~~neutral~~ ^{neutral} plumage

Pluvialis squatarola & flocks seen regularly. this is exclusively a lowland bird ~~at~~ at Prudhoe now, at least for individuals in migration. Flocks up to 15, often w/ one or two in nearly full breeding plumage. uses vegetated flooded lake basins or bare mud, both in littoral zone and in tundra away from coastal region.

Arremonia interpres - none seen since 22 July

Calidris melanotos - a few broody ♀♀ still around. ^{seen regularly.} one found w/ 3 chicks $\frac{1}{2}$ week old on 29 July. suggesting a clutch completion date as late as 5 July. Most extensive marshes have a broody ♀ or 2 or up to 4 at once have molted us within last 4 days. no big buildup of migrating ♀. Juveniles becoming a regular but ~~are~~ very scarce commodity.

C. bairdii - fledged juveniles seen in a number of places, usually along littoral. Broody adults also encountered. My strong feeling is that they are largely a coastal breeder here, using the "bluffs" along sloughs and rivers by the littoral. But they also breed on higher more barren sites as far as 10 miles inland (who knows about farther) e.g. on pingos or creekbeds. If any calidridine breeds in the Sag delta consolidated dunes (Part 9) it will be bairdii. 5 juveniles seen on Sag River gravel bar 31 July

C. alpina - juveniles fledging. adults flocking. not a bird to expect regularly to count on in any given place but found regularly + quite patchily, such that on occasion we happen across flocks of 10-15. uses lowlands and somewhat into uplands + ~~some~~ mesic polygonized tundra. adults molting, but black patch not yet conspicuously blotchy.

C. pusilla - adults have disappeared, abruptly. juveniles invaded (see sp. account), cresting 28 July w/ 1000's along littoral. Differ from Barrow in that here they are also conspicuous on some tundra locations. Flocks seen regularly moving toward coast.

Littoral habitats: largely ~~Reddish~~ Puccinella phalaropus marsh, foraging along receding water line in very yucky mud. their semipalmation probably saves them from a La Brea'sh fate, sucked into red mud. See sp. account re aggression

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Journal

Produce Bay, N. Slope, Alaska

31 July
cont'd

Calidris himantopus - juveniles seen every day in muddy pond by NANA at Deadhorse.

adults apparently gone

Tryngites subruficollis - 1 seen in dune area w/ Pluvialis dominica ~~30~~ 29 July

Limnodromus scolopaceus - very few (<5) since 22 July

- was few along ocean - 5 seen at West Dock

Ph. fulicarius - a few ♂♂ still around, with juveniles seen every day in low numbers

Ph. lobatus - peak of ♂ migration reached 28 July. Dropping abruptly. used tundra wetlands rather than l. forest. Began to see first juveniles ^{~27} ~~28~~ July in NANA pond

Stercorarius parasiticus - regularly seen on tundra. one chasing Nyctea. no juveniles

Stercorarius longicaudus - unusual now, none seen for several days

Larus hyperboreus - adults accumulating near camps. saw 1st 1st winter bird at Produce

pairs w/ chicks (one or 2) on many larger lakes. one pair w/ 2 chicks on gravel bar in

Sag River

Xema sabini - fewer than 5 seen since 22 July, all flying by

Sterna paradisaea - a few along larger lakes. no proof of breeding

Nyctea scandiaca - one

Corvus corax - unchanged

Motacilla flava - one adult at NANA for 2 days 28-29 July.

Calcarius lapponicus - none feeding young anymore. young abundant. becoming restricted to exposed ridge areas, along & creeks etc. almost exclusively in flocks

NOTE => whatever interpretation that comes from these brief notes should bear in mind the dryness of the tundra this year.

Atkasook, Meade River, Alaska

2 August

0700-1200 censusing transects 5, 6, 11, 12. 1200-1800 looked at vegetation w/ Lynne Stengel, trying

to recoup some of the info given her by Vera Komarkov. I fear we are in trouble re vegetation

work here. But first - what of the transects: weather balmy, excessively so, favoring an abundance of nasty bugs (ie mosquitoes). temp into 60's at least. mild E wind switching to warm westerly.

Incredibly hazy - apparently there are many N. Slope tundra fires this year, related to the dryness.

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1977

Journal

Atkasook, Ukele River, W. Slope Borough, Alaska

2 August
(cont'd)

Whether fire induced or not the fog haze is oppressive, ~~and~~ and made worse by the muggy heat. Oh for a cool ice breeze off the Beaufort! Shorebirds restricted almost exclusively to string bogs and unpolymorized Carex marshes. But there are few of them, with the 2 Pluvialis spp, ~~and~~ Calidris melanotos ^{and Limnodromus scolopaceus} being the only things encountered widely. See daily list, transect summary. One Gallinago gallinago in a Carex marsh. Abundance of juvenile Calcaris along ridges. Passerine movement appears to be underway. The tundra is excessively dry — even many LCP centers with Carex aquatilis and Nostoc (an algae) are bone dry. Vegetation \Rightarrow perhaps the problems arise w/ any attempt to assign all sites to a set of discrete categories. But that is little consolation. There were many stands which we had tremendous difficulty in dealing with, i.e. in placing in one of Vera's units. Partly that is a result of insufficient information. We need a list of spp which accompany the defining species, because the latter are not always present. But Vera also relies upon land form, such that [from the limited info we have], the same plant species associating in 2 separate ~~assemblages~~ microhabitats (i.e. physical microhabitats) may be split into different associations. No argument! It is also disturbing to see the variation in physiognomy of vegetation which exists within a given one of her associations, that is if we are correctly assigning stands to her system. This holds true, for example, in the Carex aquatilis - Carex chloroxantha unit which grows in the centers of LCP's — vegetation height + density vary a great deal.

3 Aug - returned to NARL after waiting all day for plane

4 Aug - work inside at Barrow.

5 Aug - flew to Deadhorse Pennell Bay, Alaska

hunted w/ lost luggage all afternoon. Did have time for brief survey of NANA ponds, ~~to~~ out behind the sewage ~~tank~~ tank here at NANA. 15+ juvenile Calidris melanotos, 35+ mixed adult + juvenile C. alpina, 20 C. melanotos juveniles, 30 C. pusilla, 10 C. mauri, plus at least 50 Ph. lobatus juveniles. The species composition has changed markedly since I left, and the ratio of adults to ~~just~~ juveniles has also shifted.

JP Myers
1977

Journal

Deadhorse, Prudhoe Bay, N. Slope, Alaska

6 Aug

0700 beginning to sample transects w/ Dave Shuford - running two very distant areas: the East ~~Dock~~ Dock + Sag River set and Michelle Rhymer + Angel P. go transects. Activity near East Dock and the Sag is quite high - many *Calcarius* juveniles flocking about, and shorebirds popped up in many transects. An extraordinary \pm of *Tryngites* today, beginning w/ a ♀ w/ brood in T39. see sp. account. Golden plovers but considerably less abundant than last week. The highlight was a pair of juvenile *Limosa haemastria* in ~~the~~ some littoral ponds SSE from East Dock by ~ 1 mile along the road. In contrast to the activity level in the eastern sector, i.e. the sand dominated region, the pace of activity in the west was much lower, with fewer birds seemingly restricted to fewer areas. This may largely be due to the coastal character of the sand ^{dune} region, ~~where~~ i.e. it is in a position to pick up the coastal ~~egg~~ zone movement.

Haul road - Deadhorse to Toolik Lake, N. Slope, Alaska

1815 left Deadhorse w/ Dave Shuford and Claire Buchanan driving south along the haul road. We reached Toolik Lake ($\sim 68^{\circ}43'N$, $149^{\circ}1'W$) at 2330 after a slow but steady trip. Weather gradually deteriorated, becoming foggy with scattered rain as we proceeded inland and up. Had been clear at Prudhoe. We made very few stops en route, and I therefore will refrain from any extensive description until writing up the return trip. Fog obscured much of our view south of Sagwon uplands. see daily list for spp seen. Found one "pauper" near Franklin Bluffs - a wolf that has learned to beg from passing trucks. Sampled two roadside ponds with Claire - she works on *Daphnia* and finds a successional pattern involving 2 spp *D. pulex* (light) and *D. multiseptata* (dark), with *pulex* moving in to newly formed ponds first but being replaced by *D. m.* later. Apparently *D. p.* is adapted to ^{relatively} eutrophic situations whereas *D. m.* to nutrient poor conditions. *D. m.* also more resistant to a heterocon predator because of its dark pigmentation.

Haul road: Toolik Lake to Chandalar

7 Aug

Again a rushed trip - this time w/ the intent of catching Vern Romarkoun (INSTAR) to discuss Meade River vegetation. Foggy from Toolik over first 10 km, then low fog up to Atigun Pass, but clearing from pass south to Chandalar. We left Toolik at ~ 0930 and arrived at

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Journal

Haul Road, Toolik → Chandalar

7 August
(cont.)

Chandalar by 1100, stopping between 1100 and 1200 w/ Vera as she sampled a veg. taken site. Saw grizzly bear in Atigun Canyon foraging in willows. Spent till 1500 in conference w/ Vera. Then got down to business, driving ~20 km S. of Chandalar to begin sampling.

Haul Road: Trumbley Creek (~67° 58' N) + Ditch River → Tree line (~68° 01')

General strategy: Stop for 30 min to 60 min in a given station, with Shuford + me splitting up to detect as many bird spp as possible during that period. We tried to hit a range of habitats within a region (ie. w/in S. slope of Brooks, Atigun highland, etc) but ~~avoid~~ ^{would} overemphasizing riparian habitats w/ surrounding uplands.

Station #1: ^{Picea glauca to 8m} white spruce lowland by Ditch River, with understory of blackberry, many ~~Carex~~ ^{along river} *Carex* sp., *Alnus*, *Betula*, a riparian low ~~land~~ ^{land} forest. gravel river bed. *Vaccinium vitis-idaea*

STATION #2: - *Picea glauca* to 8m, lowland by Ditch River. Heavy *Vaccinium uliginosum*, *Ledum*,

Carex sp., *Eupetrum nigrum*, *Salix reticulata* undergrowth. one swath of replanted grassland over buried pipeline. *Populus balsamifera* along river. *Salix alaxensis* thick along streams

STATION #3: treeline - last of *Picea glauca*, to 8m. *Alnus* ^{crispa} ~~sp.~~ *Betula* ^{glandulosa}, *Ledum*, *Vaccinium* ^{vitis-idaea} ~~uliginosum~~,

thick *Salix* ~~sp.~~ *pubera* + *Carex bigelowii*, *Rubus*. W side of stream largely ~~Alnus~~ *Alnus* ^{crispa}

Station #4 - Around Chandalar camp - a sewage seepage pond plus draining creekside w/ *Salix alaxensis* + *Salix lanata* to 1m high, understory of *Carex* sp., *Cestrosia* sp., *Peltifera* sp., *Polygonum histiola*, *Salix reticulata*, *Arctagrostis* sp., *Polemonium*, etc. typical riparian willow thicket.

Station #5 ~~sewage pond~~ ^{to 1m. high} broad creek basin w/ *Salix alaxensis* thicket, ~~also~~ *Salix lanata* understory of *Epilobium latifolium* *Saxifraga hirculifolia*, *Carex* sp., *Equisetum*, *Pteris*,

Dryas, *Pedicularis* ~~sp.~~ ^{*Betula*} *Vaccinium uliginosum*, *Arctostaphylos rubra*, *Salix reticulata* and *Oxycoccus integrefolia*

8 August

Station #6 - alpine tundra, fell field *Dryas* dominated w/ some ~~willow~~ ^{*Carex* *Filipendula* *perfoliata*} *Salix* thickets in low area.

Station #7 - alpine tundra - *Vaccinium uliginosum*, *Boykinia*, *Betula* ^{nanus}, *Salix phlebophylla*, *Salix reticulata*, *Carex* spp. large *Salix* drainage area over alluvial fan.

Station #8 willow thicket on Atigun river plus thicket on hill and surrounding fell field.

Carex bigelowii + *Eriophorum vaginatum* dominant in upland. *Salix glauca*, *Eupetrum nigrum*



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1977

Journal

Haul Road: Pictish River → Deadhorse, N. Slope, Alaska

8 August
(cont'd)

STATION # 8 (cont'd). lowland by river low stature *Salix alaxensis*

STATION # 9 Toolik ~~LAKE~~ LAKE - large (~~exposed~~ ^{in exposed sites} < 1 mi diameter fresh water lake surrounded by upland tundra, rolling foothills. Upland tundra w/ *Betula nana*, *Dryas*, *Arctostaphylos*, *Carex bigelowii*, *Calluna vulgaris*, *Empetrum nigrum*. Many emergents in nearshore zone.

Station # 10 - broad ^{shallow} stream valley w/ ^{small} outcrops of rocks dominating scene. upland tundra above Toolik on Walker-Walker site # 10. *Dryas* + *Arctostaphylos* dominate exposed knolls; *Carex bigelowii* tundra in more mesic sites, slightly tussocky, w/ *Vaccinium vitis idaea*, *V. uliginosum*, *Ledum*, *Salix pulchra*. Larger *Salix* spp along creek basin in narrow band up to 1m high.

Station # 11 - Kuparuk River crossing - deep broad valley w/ extensive willow thickets up to 1m high, very thick (i.e. impenetrable)

Station # 12 - ^{rolling} tussock upland tundra of *Eriophorum vaginatum*, then some polygonized ground w/ good stands of *Ledum*, *Betula*, *Rubra*, *Vaccinium vitis idaea*.

Station # 13 high bluff overlooking Sag River valley. Knolls covered w/ *Dryas* - *Arctostaphylos*; *Carex bigelowii* dominating upland tundra w/ much *Dryas* mixed in. ^{*Salix reticulata*} *Polygonum bistorta* also evident. Some willow thicket along Upper Oksu Kuyik Creek; ^{large} lake ^{300 meter diameter} with a few emergents sit in deep basin.

Station # 14 - disturbed pond w/ altered drainage due to ~~close~~ pipeline/haul road. Undisturbed site in area thick well developed tussock tundra w/ *Eriophorum vaginatum*, *Betula nana*, *Salix pulchra* etc.

~~the~~ pond site a thick *Carex* marsh w/ bare edges due to receding water, other emergents also present.

pond ~ 30m across. *Eriophorum angustifolium* well developed in winter road passage site. low overall relief.

Station # 15 - bluff overlooking Sag River + river terrace: ^{above} bluff well developed *E. vag* / *Betula* tundra; side of bluff varies from prostrate *Arctostaphylos* tundra to thick *Salix* sp w/ strong understory of *Betula*, *Vaccinium uliginosum* thickets running no more than 50cm. At base of bluff polygonized *Carex* - *Arctostaphylos* marsh in centers with very slightly higher rim, then along drained creek good willow growth up to 1.5m in some sites.

Station # 16 - Disturbed pond created by pipeline from wet area in *Erioph. vag.* tussock tundra some *Carex* marsh must have been present but not extensive (20m x 100 m).

Station # 17 - creek basin lined w/ *Salix* up to 2.5m high, broadening into slight fan - reminiscent of western U.S. creek bottoms. ♂ Rangifer and ♂ moose present. Upland area very heavily

TEMPORARY - SIMILARITY OF HAVL ROAD SITES TO OIL FIELD AVIFAUNA

Coefficient of community $CC = \frac{200 S_{xy}}{S_x + S_y}$

where

S_{xy} = shared sps

S_x = species at x

S_y = species at y

S_x = site x

S_y = Prudhoe = 23

site #	S_x	S_{xy}	CC	\bar{x}
1	9	1	6.25	2.1
2	13	0	0	
3	3	0	0	
4	12	2	11.4	18.34
5	6	2	13.8	
6	8	2	12.9	
7	10	4	24.2	
8	11	5	29.4	
9	9	4	25	21.4
10	7	2	13.3	
11	9	4	29.4	
12	4	2	14.8	
13	8	6	38.7	
14	9	5	31.3	40.6
15	8	3	19.4	
16	5	3	21.4	
17	6	2	13.8	
18	5	1	7.1	
19	10	5	30.3	40.6
20	8	7	45.2	
21	16	9	46.2	

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1977

Journal

Haul Road: Dietrich River → Deadhouse

8 Aug (cont)

Station #17 (cont'd) tussocked w/ Eriophorum vaginatum / Betula nana up to 30 cm high. ungodly walking. Some polygonized ground w/ Ledum / Rubus tundra.

Station #18 deep rolling foothills in the Sagwan Uplands. Salix sp. thicket in fairly prostrate form (up to 30cm, very thick) along creek. sharp outcropping rocks. Eriophorum vaginatum tussock tundra away from creek basin w/ Ledum, Betula, Salix pulchra mixed in tussocks

Station #19 braided river terrace on coastal plain. low thick mat of Salix ^{alaxensis, S. glauca} ~~alaxensis~~ between gravel braids.

Eriophorum vaginatum tussocks in upland dry areas. Carex bigelowii + Salix lanata in slightly wetter tussocks, Betula nana, Carex, Ledum along edge of terraced areas.

Station #20 - heavily evaporated pond w/ bare edge, Carex aquatilis dominated ~~at edge~~ w/ Eriophorum vaginatum ~~at edge~~ angustifolium in margins also. mounds + polygonized ground between small set of ponds covered by Ledum - Rubus - Betula tundra. Upland tundra in the area largely Eriophorum vaginatum. low relief.

Station #21 very slight relief w/ shallow stream ~~flow~~ beds moving toward Sag Basin, then growing into deeper channel lined by Salix alaxensis and S. glauca. Upland is Eriophorum vaginatum w/ Carex bigelowii and Salix lanata. In lowest of stream beds, dense stands of Eriophorum angustifolium.

Station #22 - a broad area enclosed from the road w/ a series of ponds + lakes, low Carex marsh, polygonized w/ low centers and low rims, less than ²⁰~~30~~ cm high. Many roadside ponds covered by hummocks of drainage paths. Carex saxatilis, Carex aquatilis in centers of LCP's. Upland tundra is Carex aquatilis, Carex bigelowii, Dryas, Salix reticulata, Salix lanata, Eriophorum vaginatum.

For location of these sites see map on opposite page. For bird list see following two pages, broken down by site. Overall general description:

~~Station~~ Stations 1-3 Picea glauca / riparian area. ~600m elevation

Stations 4-8 alpine tundra, riparian area 700-1100m

Stations 9-18 foothills province w/ riparian sites 200-700m

Stations 19-22 coastal plain, river flood plain. ~200m

~~Almost~~ Almost all sites contained some drainage system varying from Alnus thicket at 1-3 to ⁹⁰~~200~~ ft

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1977

Journal

Haul road, Dietrich River → Deadhorse, mostly N. Slope, Alaska

STATION # →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Prudhoe	
<i>Gavia arctica</i>																								✓
<i>Gavia stellata</i>											1										2	1		✓
<i>Branta canadensis</i>																								✓
<i>Branta nigricans</i>																								✓
<i>Anser albifrons</i>																				4				✓
<i>Anas platyrhynchos</i>									5												4			✓
<i>Anas acuta</i>													5	1	1					6	1	1		✓
<i>Anas crecca</i>									2	2	1			11										✓
<i>Aythya marila</i>																								✓
<i>Clangula hyemalis</i>																								✓
<i>Melanitta deglandi</i>																								✓
<i>Buteo lagopus</i>												2						1						✓
<i>Aquila chrysaetos</i>							1																	✓
<i>Circus cyaneus</i>																	1							✓
<i>Falco peregrinus</i>																								✓
<i>Falco sparverius</i>	1	1																						✓
<i>Lagopus lagopus</i>															6									✓
<i>Chaparrus semipalmatus</i>				2										9					1		1			✓
<i>Pluvialis dominica</i>								7					2		3		3		3	1	3	4		✓
<i>Pluvialis squatarola</i>																								✓
<i>Numenius phaeopus</i>																				2				✓
<i>Heteroscelus incanus</i>					1																			✓
<i>Calidris melanotos</i>														1	2	1			2	2	40	3		✓
<i>C. bairdii</i>				1																				✓
<i>C. minutilla</i>				3								2		7		5								✓
<i>C. alpina</i>																								✓
<i>C. alba</i>																								✓
<i>C. pusilla</i>														1		7								✓
<i>C. mauri</i>																								✓
<i>C. himantopus</i>																								✓
<i>Tryngites subruficollis</i>																								✓
<i>Limnodromus scolopaceus</i>																								✓
<i>Ph. lobatus</i>														5		9						5		✓
<i>Ph. fulicarius</i>																								✓
<i>St. parashius</i>																								✓
<i>St. parashius longi.</i>						1		1											1		3	3		✓
<i>Larus hyperboreus</i>							1	1	1	1		2	1											✓
<i>Larus carus</i>	1						1		2	4										5	3	5		✓
<i>Sterna paradisaca</i>																								✓
<i>Sterna paradisaca</i>									1											5	4			✓
<i>Asio flammeus</i>																					1			✓

1 2 3 4 5 6 7 8 9 10 11 12 13 14 21 22

Arctania i

✓

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1977

Journal

Haul road, Dietrich River → Deadhorse, N. slope Alaska

7-8 August

STATION # →

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Providence
<i>Perisoreus canadensis</i>	5	1																				
<i>Corvus corax</i>				8	1	1	3	2			1	2	1	1						1	18	✓
<i>Parus hudsonicus</i>		2																				
<i>Turdus migratorius</i>		1		1																		
<i>Icterus narvius</i>	3																					
<i>Catharus minimus</i>		1																				
<i>Oenanthe oenanthe</i>				3	32	1																
<i>Phylloscopus borealis</i>			4																			
<i>Regulus calendula</i>	1	2																				
<i>Motacilla flava</i>									5	12		4	1	15		41	1	15		4		
<i>Anthus spinoletta</i>					7	5	1			2		1		6								
<i>Larus excubitor</i>				1	1		1	1														
<i>Vermivora celata</i>	1	1	1																			
<i>Dendroica coronata</i>	10	15																				
<i>Wilsonia pusilla</i>		1	1																			
<i>Acanthis flammea</i>	3				4		15	9	2		14	2							1	1		
<i>Passerculus sand.</i>				3		3	1	16	10	5	4				2	5	8	3	5		17	
<i>Junco hyemalis</i>		6																				
<i>Spizella arborea</i>	1	6		8	6	10		22		5	5							1		3		
<i>Zonotrichia leucophrys</i>	3	10		25	3	4		10		1	3				2							
<i>Zonotrichia atricapilla</i>				3																		
<i>Passercella iliaca</i>		1		6													1					
<i>Calcarius lapponicus</i>					7	12	16	1	12	3		16					7	1	20		45	✓
<i>Plectrophenax nivalis</i>																						✓

~~Chandler~~

8 August
(cont'd)

Typical coastal plain streamside *Carex* complex at 21-22. The upland areas varied considerably also: south of Chandler, that is south of the tree line, uplands had a mixture of tree species dominated by *Picea glauca* or *Alnus*, with the understory varying according to water conditions. In the Brooks range uplands tended to be fellfield exposed vegetation, usually prostrate shrubs, lichens, *Arctostaphylos* ^{-Dryas} *tenuosa*, etc. Foothill uplands were tussocky, varying (wet → dry) from a *Carex bigelowii*, *Betula nana*, *Vaccinium v.-i.* tussock to classic *Eriophorum vaginatum*. Exposed knolls tended to resemble the upland vegetation of the Brooks dominated by *Dryas*, *Arctostaphylos* and other mat dicots. Uplands in the coastal plain province, in comparison, ~~seem~~ scarcely deserve the name compared to the variation along the rest of the road. Nevertheless they showed a consistent pattern of differentiation from lowland sites, covered with dry

Spillars
1977

Journal

Haul Road: Dietrich River → Deadhorse

8 August
(cont'd)

~~typical coastal plain streamside *Carx* *Chorophora* marsh and *Urtica* *Chorophora*~~

tussock *Eriophorum* vag tundra in better drained sites, ranging to *Eriophorum* triste, or *Carx bigelowii* - *Salix lanata* insignificantly lower, ~~up~~ more mesic tundras.

The bird communities are summarized in the table presented on the last 2 pages. Sites 1-3, with their emphasis on aloral community stand out as distinct. The Brooks range sites, dominated by wheatears, Water Pipits, and blessed with Northern Shrikes in small number, are also consistently different. Foothill sites grade from Brooks Range into coastal plain, but differ largely in the conspicuous abundance of the Yellow Wagtail, *Motacilla flava*. Coastal plain sites are shorebird dominated, but the influence of this taxon began to be manifest in the foothills, particularly at disturbed roadside sites.

[NOTE - 1 *C. pusilla* juvenile was seen banded —: yw at station 16]

A riparian set of species - *Spizella arborea*, *Zonotrichia leucophrys*, *Passerculus sandwichensis*, — persisted throughout most of the samples wherever their peculiar microhabitat could be found (see below). A hard core of large species, especially *Corvus corax* and *Corvus hypohorus*, were also seen throughout most of the ~~range~~ transect.

Systematic list: (not all spp. - see daily list for total)

Gavia stelleri - seen at (11) and on coastal plain. Later seen carrying food to young from Sag River

Anser albifrons - 4 adults plus v10; seen from road at (20)

Anas platyrhynchos - Toolik Lake (21), and in the Sag River along N. of Happy Valley. ♀♀.

Anas acuta - unusual off coastal plain but many ♀♀ apparent ~~along~~ ^{near} into influence of Sag River common ~~along~~ ^{near} coastal plain

Anas creca - regular in foothills

Clangula hyemalis - a few ♀♀ seen in ~~the~~ lakes in foothills

Melanitta deglandi - one ♀ w/ brood diving in large lake N. of Happy Valley by station # 14

Aythya marila - ♀ w/ brood seen near Pump Station 4

Lepus lagopus - total of 3 juv. seen 2 at (12), 1 at (18)

Falco peregrinus - 1 seen by Franklin Bluff 6 Aug

Falco sparverius - restricted to boreal hab. but apparently common here. 4 individuals, 1 each at (1), (2), others

Lagopus lagopus - encountered w/ broods in Sag River valley. *Lagopus* sign widespread

Charadrius semipalmatus - 2 seen south of Atiqun Pass (at (4)). Then encountered at 3 other sites in lower foothills and along Sag River bank. Adults and juveniles.

Pluvialis dominica - adults and juveniles encountered throughout area N. of Atiqun pass, but more common once in to lower foothills and coastal plain.

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1977

Journal

Haul Road, Dietrich → Deadhorse, mostly N. Slope, Alaska

8 August
(cont'd)

Numenius phaeopus - 2 flying over, heard at (20)

Heterosculus uinamus - one recently fledged juvenile in gravelly stream on S. side of Atigun Pass - (5)
very grey, light under parts (under tail coverts), subtly scaled back with scaling widespread but not much different in color from overall light slaty grey.

Calidris melanotos - 1st seen coming N at (14) in disturbed pond site. fairly regular there 2 North, becoming common by coastal plain. largely juveniles although at least one ♀ present.

~~Calidris melanotos~~

C. bairdii - one seen at (4) by sewage pond

C. minutilla - the common small peep of the upper Sag, ^{regular} ~~common~~ near Happy Valley and south in appropriate wetland habitat - all juvenile. seen using disturbed ponds

C. pusilla - a few encountered in disturbed ponds at (14) and (16). Contrasts with scene at Pond house where even still ~~pusilla~~ pusilla is common.

C. mauri - seen only by oilfield

Chimantopus " " "

Ph. lobatus - found in scattered ponds from Pump Station 4 North, disturbed sites. On coastal plain much more evident.

St. parasiticus - only on coastal plain

St. longicaudus - widespread save in boreal

Larus hyperboreus " " " - particularly near camps and active work sites.

Larus calvus - foothills, Brooks range + boreal. breeding in foothill lakes (2 juv seen at (10))

Sterna paradisaea - ~~at~~ foothills lakes, coastal plain tundra ponds + lakes

Asio flammeus - 2 seen during evening of 6 Aug hunting over low tundra on coastal plain + along Sag River bottom

Perisoreus canadensis - several groups seen in Picea glauca

Corvus corax - widespread, from boreal to coastal plain. especially near camps

Parus hudsonicus - 2 seen in mixed flock at (2)

Oenanthe oenanthe - abundant at base of Atigun Pass near Atigun Camp, with flocks of juveniles moving over the alpine tundra along with Anthus spinoletta. very curious birds, flying up to you and hovering in front of your face. perch on Salix, on rocks, hawk insects. Drop out abruptly on either side of the alpine fell fields.

Phylloscopus borealis - one family of 4 found in very thick willow/alder thicket at treeline. eye-strip very prominent ~~below~~ below brownish cap. faint wing strip readily seen w/ good view. Pale legs also apparent

Motacilla flava - most common bird of trip - abundant in foothills in flocks up to 60 birds. noticeably widespread, present at almost every stop in that zone, using mossy tundra and riparian areas. Also found as far north as Franklin Bluffs.

Anthus spinoletta - abundant in upper Atigun Canyon, moving in large flocks over fell field. scattered individuals elsewhere particularly mixed in w/ Motacilla flava

Larus excubitor - ~~at~~ exclusively in willow thickets of Brooks. juveniles.

Acanthis flammea - very widespread, with a few individuals flying overhead at most of the Brooks and foothill sites. Juveniles seen near Chandalar.

Passerculus sandwichensis - very widespread wherever tall grass near water. Still quite broody

Spizella arborea - common in riparian willows in Brooks and foothills, with 2 ♂♂ singing near Todik. Scattered in taller willows out to coastal plain.

Zonotrichia leucophrys - common in riparian willows in Brooks + foothills, as Spizella. also singing near Todik. many juveniles.

Calcarius lapponicus - common in Brooks on N. Slope and from there out to coastal plain. mostly juveniles but some adults. exposed habitats, upland bluffs, fell fields, generally away from riparian places.

For complete
DAILY LISTS
LIST SEE

JPMYers
1977

Journal

Meadle River at Atkasook, W. Slope Borough, Alaska

12 August

Arrived Meade River 1100 on a NARL historic flight - the first twin otter landing at Meade. They came down to transport Bob White's reindeer back to civilization. Discovered upon arrival that Lynne was sick, so I ~~was~~ found out where she stood in transect cycle + sampled the last 5 that needed doing this period. There were transects 6-10. It was a good refresher for Meade, though perhaps a bit heaven for birds. The tundra is dry, with many low center polygon centers no longer even damp, ~~as~~ even those covered by Carex aquatilis - Carex chordeorrhiza. Most shorebirds were encountered in the lowest areas, either extensive Carex marshes by lake margins (transect 6 which had 21 juvenile melanotos) or ~~by~~ on bare margins of receding ponds + lakes in more polygonized ground (transect 10). C. alpina appeared restricted to the latter, while melanotos was more ~~general~~ ~~distributed~~ distributed, even though heavily concentrated in un-polygonized marshes. Black-Bellied Plovers are the only bird conspicuously with juveniles now: their incessant mobbing and alarm calls are bothersome - ~~not~~ piercing and continuous.

13 August

worked on vegetation today, sampling transect 1 as we have done the transect system at Barrow. Some alterations, the most fundamental of which is that we use Vera Komarkova's list of associations worked out at Meade instead of Pat Webber's from Barrow. There are difficulties, not the least of which ~~is~~ derive from the complexity of Meade vegetation. Vera recognizes 90 (ninety) associations. Fortunately several are quite rare or restricted to areas where our transects do not occur. But that is still a shitload. But the complexity is also manifest in unfortunate intergradations in type. For example: the dominant upland vegetation is what Vera calls Eriophorum vaginatum - Ledum. It is the classic tussock tundra, ~~although~~ occurring on well drained uplands of varying degrees of polygonization (from trough ~~to~~ height 10-80 cm). Tussocks are variable in size but smaller here than in haul road sites, ranging only to ~15 cm high. Anyway - the E. vag. - Ledum association is thick with fruticose lichens, especially Cetraria spp., and has a number of vascular associates: Rubus, Betula nana, Vaccinium vitis-idaea, Carex bigelowii, etc. But the proportion of these associates in terms of % cover varies enormously, as does the % cover of Ledum + E. vag. They vary so, in fact, that

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Journal

Atkasook on the Meade River, N. Slope Borough, Alaska

13 August
(cont'd)

the physiognomy of an association varies within the association as much as many do between associations. This is particularly true when you up the replacement of Betula nana + throw in a little Salix pulchra (but keep the heavy fruticose lichens). It becomes a miniature forest almost.

14 August

sampled transect 1 all day. Almost finished after 11 hours. Aargh.

15 August

finished T1 + began T2. Juvenile golden plovers moving past, flocks of 10-20 calling overhead, laughing at the tundra plodder. Tundra plodding became no laughing matter in T2, however, when I encountered ~~serious~~ ~~problems~~ serious ~~problems~~ in habitat analysis. Not that I hadn't before, but they came home to roost this morning. Komarkova's system relies heavily on the physical setting of the association - e.g. whether it is lichen ridge or streambank or snowpatch. I find that unsatisfactory, and therefore went out during the afternoon w/ Lyne Stengel to try and iron out some difficulties. results: the most serious problems relate to variations on Carex aquatilis - Salix pulchra. She differentiates between a ① Salix p. - Carex aq. spring bog; ② Carex a. - Saxifraga hircuifolia semi-bog; ③ a Salix pulchra - Carex aquatilis - Hylacomium ^{amoss} semi-bog; and ④ a Salix pulchra - Carex aquatilis - Sphagnum snow patch; and ⑤ Salix pulchra - Pyrola saxatilis - Sphagnum shrub association. ~~However~~ ⑤ presents few problems, as it occurs near dunes with a particular physiognomy. But the others intergrade. We will try to construct an objective way to deal w/ these problems.

16 August

finished T2.

17 August

all day on T3, finished. Weather yesterday + today has been identical - 60°s + 70°s (short-stems) with light zephyrs except in mid afternoon, when the heat built up oppressively. Both days it was broken by afternoon rain showers, big puffy cumulus clouds building up + moving over from the west. Rain was hard and substantial on both days. Bird notes: ~~Pectorals~~ Pectorals all but gone; Dunlin flocking strongly, with a group of 35 foraging together in exposed Arctophila pond mud near transect 3. Dunlins tooling around over the tundra, moving between ponds but also it isn't unusual to see small groups headed N moving strongly w/ no hint of stopping. Loons: it is loonlike ~~here~~ here, with all 3 species (adamsii, auritus, and fellatus) obvious. They call incessantly. No 5 minute period

JDM:ew
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Journal

Atkasook at Meade River, N. Slope Borough, Alaska

18 August
(cont'd)

pairs during the day without hearing one of them, and often all three. arctica are the most conspicuous: any lake has a pair w/ chicks, one adult tending one chick the other working w/ the other. ~~Chick~~ Foraging for the chicks appears to be right below the chicks with the adult rarely under for more than 3 or 4 seconds & staying right beside the chick.

Gavia stellata, by contrast, I see flying between Imakrakh Lake and wherever they are nesting, carrying fish (8-12 cm) cross-wise in the bill. They have been excessively noisy, ack-ack ing in flight, giving the sandhill crane call from their lakes, etc. Gavia adamsii I rarely see flying, but its yodeling emanates from Pingo Lake constantly. Larus hyperboreus: young ^{landed} fledged in one nest by August 14. These nests were the first active nests this year of which we ~~are~~ were aware, and apparently the first w/ fledged young.

19 Aug T4 finished. more snow patch trouble

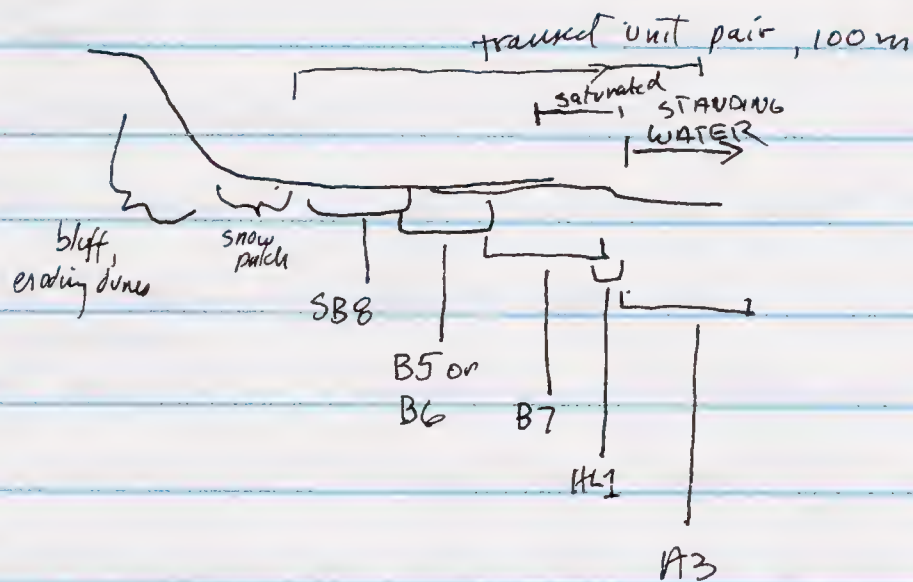
20 Aug T14 started and finished. we have speeded up the process by splitting the Eriophorum vaginatum - bedum upland tussock tundra into ~~the~~ 4 separate ~~one~~ ones. How does splitting speed things up? Because the E.v.-L. (UMI) association is so broad in its moisture gradient occurrence (from what we can deduce from Vera's info) that it often takes some effort to assign wetter extremes to UMI. The anguish this causes takes time. By splitting it up we ~~had~~ ~~could~~ make it easier to do the job because we don't have to pain over the assignment. ~~split~~ 4 sub-assoc's are: UMIa - UMI with a snow patch matrix (i.e. E.v. tussocks growing in a matrix of Robus, Alcetonia, bedum, Cladonia/Cladonia/Cetraria lichens. This is the matrix in which UMI appears ~~as~~ in well drained polygon rims, particularly WCP's; UMIb - E.v. tussocks in SB3 (Robus - Betula nana - Sphagnum) matrix. This is a much wetter type, often appearing on lower polygon rims w/ SB3 centers. UMIc - ~~up~~ the upland tundra matrix - often thick but low tussocks growing in matrix of more Eriophorum vag., bedum, Rhacomitrium, fewer fruticose lichens ^{Carex bigelowii} (and no Alcetonia/Comicularia) this occurs in drained but flatter areas with little polygonization (in fact frequently none) and reduced topographic relief. UMI d - thick Carex, usually bigelowii & reduced tussocks, often almost not apparent. much wetter but still not the E.vag - Betula nana semi-bog association.

JDM:yes
1976

Journal

Atkasook at Meade River

21 August T13 complete. A glorious day, with me working up a shirt on from 0930 to 1900. Asbunding for the tundra. Almost no wind. No mosquitoes (too late in season). And T13 was a joy, largely comprised of Carex marsh beside Pingo lake. The transect runs along the lake shore, and each parallel set of transect units straddles a recurring ~~so~~ plant gradient:



see attached list of plant associations (opposite page) for key to plant associations. Transect 13 runs in a line parallel to the bluff, that is, out of the page. The study line runs roughly down the zone just water-ward from the saturated zone, making most ~~of~~ the area within units on the right either under water or squishy. A3, thin stands of Arctophila fulva, grows out in standing water. Carex aquatilis - Polemonium acutiflorum (HL1) is a thin (1-2m wide) strip of slightly raised turf occurring in many but not all of the transects. Given how dry the tundra is this year HL1 is not even always saturated, and there may be a meter wide strip of bare mud waterward from the HL1 strip. In many places ~~the~~ the transition from vegetated bog (B7) to water (A3) is merely a more luxuriant growth of B7 - Carex aquatilis to heights up to 45cm. This typically occurs where there is no raised shelf along the lake, a shelf acting as a substrate for HL1. B7, largely saturated, is a mixture of Ranunculus pallasi, Carex aquatilis, and (sometimes) Caltha palustris. Substrate is generally moss-free, although where it integrates with B5 or B6 there can be Drypanocladus. Instead of mosses it often has a spongy red muck for a bottom surface. Patches of B5 occur within B7 on the dryer side. In fact in the interface between them two Ranunculus pallasi can grow out of Drypanocladus.

JP Myers
1976

Journal

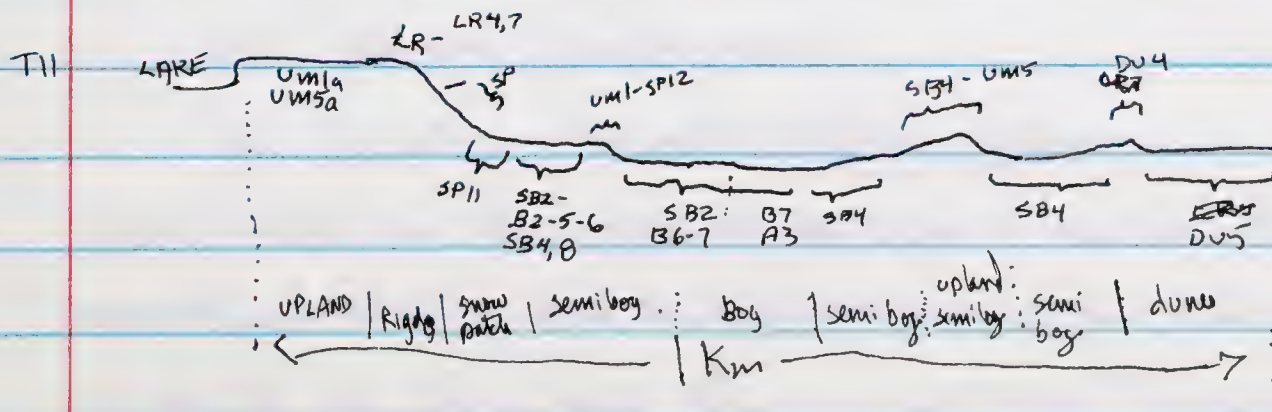
Pitkasook at Meade River, Alaska

21 August
cont'd

mats. B7 vegetation heights are usually 25-34 cm, ^{but up to 38-40} with densities running around an index of 19-20 at 10 cm. (makes a lot of sense to those who aren't familiar w/ the index, ~~but~~ doesn't it)
B5 - Carex aquatilis - Carex chondrorhiza often ^{up the water gradient} the next association through it can appear above B6. B6-B7 mixes do occur. In a classic stand of B6 the stringy character of Carex chondrorhiza dominates the patch - low vegetation densities (10-15) and lower heights, ^{up to 30} especially if little Carex aquatilis is around. B6 on transect 13 is often in areas now dry or only wet (not saturated). Lots of C. chondrorhiza in and around Dryas octopetala mounds. Semi-bog strings are also present. B5 - (C. aquatilis - Dryas octopetala) in its fullest expression has a different gestalt than B6 or B7 because of the heavy ^{pure Dryas octopetala} moss mat. Much of it on T13 is dry now. The Dryas octopetala particularly favors higher mounds within the area (5-10 cm above ground level) especially in wetter reaches. Its colonization of these mounds may initiate the succession to semi-bog vegetation, as I find Salix pulchra sometimes beginning to eke out a life in a Dryas octopetala hummock. Sad but true. SBB is a problem here - the association intergrades with the Carex string bog business (Carex - Sphagnum - Salix pulchra) ^{SB2}, with Rubus - Sphagnum - Betula nana ^{SB3} and with Carex - Salix - Sphagnum snow patch.

22 August

SKUNKED! The transition along Transect 11 from upland Tundra across a lichen ridge through snow patches across an expanse of Rubus - Sphagnum bog, into a real Carex bog with strings, and then up ^(U15a,b) and out onto another ridge, first covered with a Salix phlebophylla cover and then getting up to a sandy, Dryas - Carex bigelowii semi-bog (SB4). It ends on a blown out sand dune region covered by Dryas - Tofieldia coccinea stabilized, moist dune.



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Atkasook at Meade River, N. Slope Borough, Alaska

22 August
cont'd

We were foiled in completing the transect by a complex transition between ~~SP1~~ the snow patches beginning w/ SP11 and the string bog area (SB2). In general the most striking features to the transect are (from left to right): ① the increase in Oryza in semi-bog situations, first appearing in the semi-bog just left of the bog, but ~~continuing~~ coming in force to the right + remaining throughout; ② the disappearance of Eriophorum vaginatum and Vaccinium vitis-idaea, complementing the appearance of Oryza (both a few plants seen in the upland semi-bog between to the right of the bog, but only in the leftmost perimeter of that area); ③ the increasing amount of sand obvious in the moss substrate. Unconsolidated sand grains are in the moss ~~patches~~^{mat}, and by the time you get to the right hand semi-bog there is quite a bit, including places where sand merely sits on top. Then, of course, there are the consolidated dunes, places with a fairly complete vegetation cover, every now and then save a few Elymus, Bromus, etc., and mixed w/ blow-out areas lacking the solid surface. ④ appearance of Salix ^{glauca and} lanata -- it makes a showing ~~but~~ beginning in the upland semi-bog.

23 August

Charged through transect 11, slogging it out in the lowland bog and speeding over the uplands. The worst part in terms of assigning to vegetation association concerns the semi-bogs at the base of the large ridge (see drawing 22 Aug Journal). We (Stenzel and me) agreed on several principles to aid in identifying different types: the most difficult to identify are (and found frequently):

SB2 - Salix pulchra - Carex aquatilis string bogs. The classic expression of SB2 is unmistakable. Our problems derive from gradations between SB2 and other SB's, especially SB8.

SB#3 - Rubus - Sphagnum - Betula nana.

SB#6 - Betula nana - Eriophorum vaginatum

SB8 - Salix pulchra - Carex aquatilis - Hydrochloa / Hylochloa

As with SB2 the classic expressions of all of these ~~bog~~ semi-bogs are unmistakable. Only their intergradations, particularly among themselves but also with several snow patch associations and with some upland tundra, are difficult.

Unfortunately, given the very complex pattern of micro-relief caused by polygonization and the snow patches caused by drifting, most of the tundra is one big intergradation.



JP Myers 1977
1977

Journal

Atkasook on Klade River, N. Slope Borough, Alaska

23 August
(cont'd)

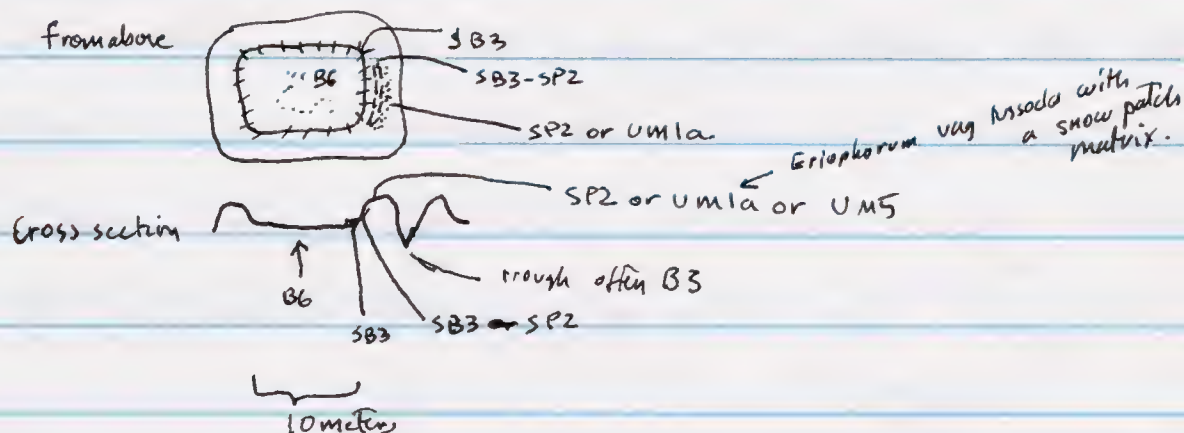
Anyway, we have come up with the following subdivisions:

SB8a = SB8 w/ Pyrola, Cassiope, ^{Salix pulchra, Carex aquatilis} in semi bog mosses w/o Sphagnum

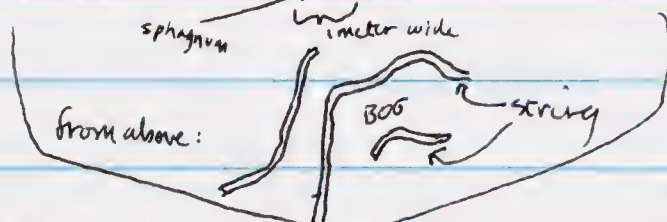
SB8c = Salix pulchra and Carex aquatilis with Hylocomium + other non-Sphagnum semi-bog mosses. This is the classic SB8 occurring along lake margins, usually flat but frequently w/ mounded Salix pulchra

There is no SB8b (historical accident)

SB3 - SP2 or SP2-SB3: in many high polygon vims areas with low centers filled with bogs (i.e. low-center polygons filled w/ something like Carex chondrichiza or Carex - Depressocladus), rims quite high, frequently in excess of 40 cm, sometimes to 60 or more, the inner center is lined with SB3:



SB3 vs SB2: SB2 is beside a bog forming a series of long ^{meandering} strings in its classic expression. Cross section: string Salix pulchra Carex bog with string coming out of page



The string is largely if not exclusively formed ~~from~~ with a Sphagnum base. A few clumps of Hylocomium and other SB8 associated moss can be found, but the essence is pure Sphagnum. Salix pulchra and Carex aquatilis are the dominant vasculars, but several grasses, Pyrola, occasionally Cassiope and Rubus or Betula will sprout up, but they are miniscule in importance. SB3, on the other hand, is dominated by Rubus, Betula, and bedum, although it can also have Salix pulchra and Carex. We have adopted the ^{i.e. any stand} ~~stand~~ formalism of calling anything with more than trace amount of these SB3 species to be SB3, as the SB2 association appears to be quite invariable in its normal condition (i.e. as the strings themselves). Pure mounds of S. pulchra and Carex on Sphagnum in a bog are also treated as SB2.

SB3 vs SB8: SB8 lacks Sphagnum and usually occurs without any of the important SB3 vasculars (i.e. Rubus, Betula or bedum). SB8 occurs on lake margins between the upland rim vegetation and bogs. It often can be a topographically featureless vegetation with thin prostrate

24	6
25	7
26	7
27	7+9
28	9
29	

JP Myers
1977

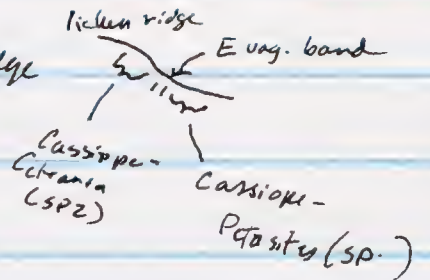
Journal

Atkasook on Uleade River, W. Slope Borough, Alaska

23 August
cont'd

Salix pulchra and a strong ~~too~~ semi bog moss matrix (especially Hylocomnium and Autodromnium)

SB6 - a difficult shoot which we are able to ^{id} now because of peculiarly striking growth form of E. vaginatum: it occurs in wet semi bog sites with a "prostrate" form of tussock surrounded by mosses and with, often, Betula. The E. vaginatum in these sites is now much queerer than E. vag. is in any other areas. There are intermediate forms between SB6 and a UMI with semi bog matrix. In fact, perhaps, SB6 is ~~an~~ UMI with bog matrix. It probably is related ~~to~~ to a recurrent vegetation band found in snow patch sites, where often in the driest of the snow patch areas there is a thin (1-2m) band of E. vag. with little else. For example, transects 5 and 71 both possess this type as they plunge off the ridge



Petasites-Cassiope Snowpatch

SP10

Notes from
Stengel T5

E.v., Cladonia Ledum

less Petasites, picking up C. bigelowii, S.p.

many foliose lichens

- band at base of bluff - lots of Cassiope, Petasites, Polygonum, S. pulchra, Desmanum, also Vaccinium,

a few fruticose lichens, Sphagnum, Autocomnium, Hylocomium, Saxifraga punctata, Carex aquatilis, Erioph. vaginatum.

T-5

"not quite snow patch but probably late flowering.

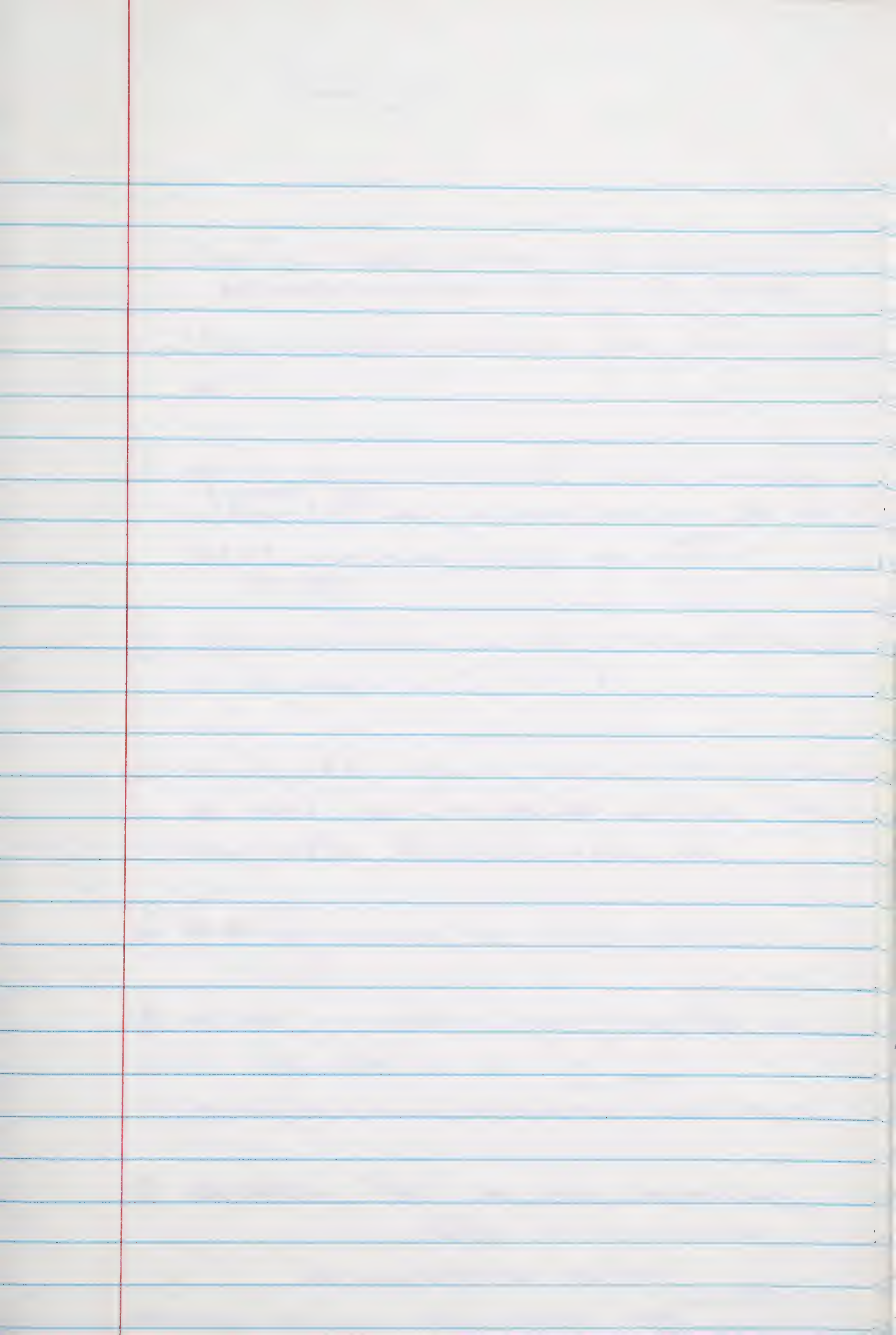
moundy semi-bog area away from but at base of old river bluff

mounds are: *Salix pulchra*, *Carex aquatilis*, *Cassiope*, also *Vaccinium* + *Salix phloptyla*

patchy lichens - *Cladonia/Cladonia*, *Cetraria* in / *Oxypurum*, *tomentosum*, *Autodermium*

~~between~~ between mounds are mosses, lichens, *C. aquatilis*

notes from
Stenzel
TS

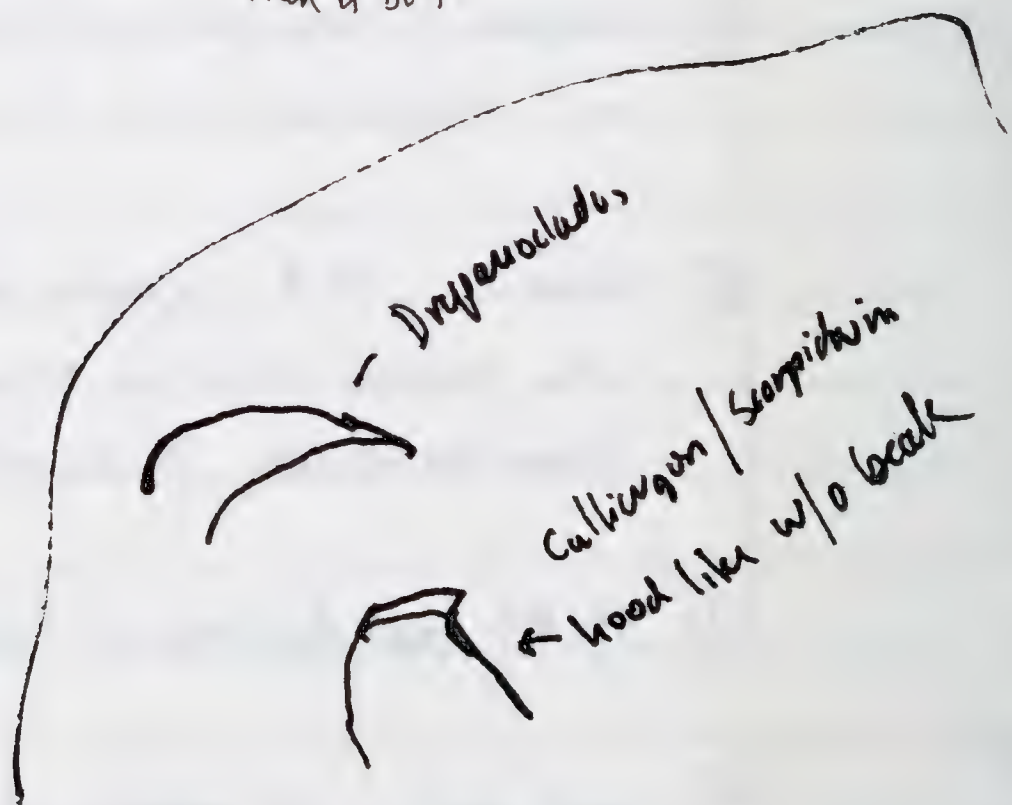
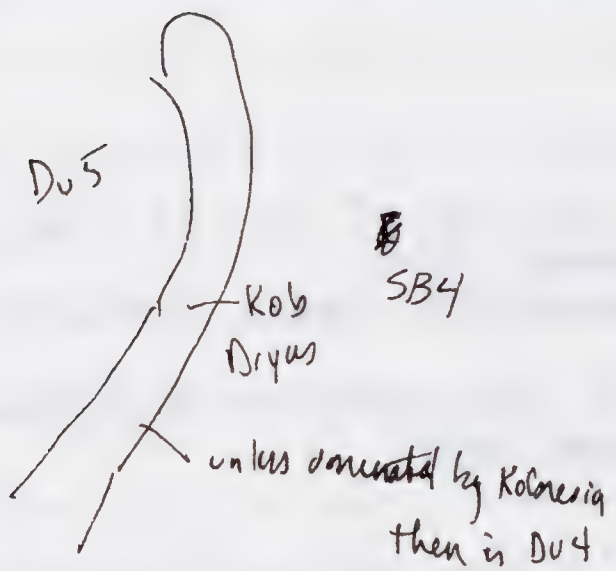


Questions for Veru

1. go through list - especially SEMI BOGS - and get list of associates particularly where occurring in more than 1 habitat (e.g. *Spulchra* - *Carex aquatilis*)
2. ^{to} what use can we put presence or absence of fruticose lichens +/- woody spp.?
3. confusion re UM-5 vs. LR 5. or 6. we have a common type
^{*Salix phlebophylla} ^{Cassiope}
w/ *Polygonum bistorta*, *Hieracium*, *Carex bigelowii*, usually lacking *Betula nana*
what is it. occurs along back side of lichen ridge — ^{answer:} UM-5
Bistorta - *Betula*?
4. confusion re *Carex aquatilis* \leftrightarrow *Carex bigelowii*. Many "snow patches" have C.b and *Salix pulchra* but no C.b. is it SP 11?
5. confusion re SB-8. in dryer or drier site will have C. bigelowii instead of C.a. often substituting C.b for C.a moving from ~~low~~ rims to troughs. Fruticose lichen deep out also. Does she not distinguish between these?
6. SB-5. might lack *Ledum*, no? what if it has *Rubus*, *Vaccinium*
7. what about a bog association w/ *Carex aq.* - *Eriogonum*, *Pedicularis* ~~saxatilis~~, *Caltha*, *Juncus*.

\swarrow
 \searrow
heavy on both

— i.e. what do we do when C.a. occurs often by itself or only with *Eriogonum*.
8. ~~Carex~~ *Supulchra* Ca Sp Ps *Carex* *Spulchra* *Oryas integrifolia* dry bank edge in T11 near (15,0) what units are in here. what about variation with
Mixed polygon - *Carex* - *Pleuronotum*, *Carex aq.*, *Carex bigelowii* — trouble with center or
does she split



VERA

T11 continued - we have an area w/ Sp - Ca - Pleurozium (Hylocomnium)
common by runs in the center of polygon centers. 2 variations w/ C bigelowii

ANSWER - all the same \Rightarrow on rims. ~~Does she differ~~ w/ more pulchra. Does she differentiate
between ~~the~~ rims + centers. Also in same area C.a. - E. ang
centers or C.a. - C. chondricha centers, quite distinct from above.

1st centers that looked like continuation of rim, but - decidedly wetter

{ 2nd sets distinct mapping units
3rd - C.a. - E. ang - we don't know what to do with.
 \rightarrow areas were prominent

rim nearby - Kobresia - Dryas. ^{DV-3} a rim ~~later~~ on a standing stand
tongue around DV5

need to assign to all grouping

we found what we think to be Vaccinium vitis idae - Salix phlebophylla -
what is ~~direct~~ distinctive about it.

shrubs - } % cover at different layers
herbaceous } not life types but rather
cryptograms }

JPM
1977

Carex

Mendocino River

Carex bigelowii - very triangular culm, taller ~~stems~~ than leaves. black auricles at base of lowest bract.

2 stigmas but not persistent. ~~from~~ upper spike staminate. scales of perigynia

JPMeyer
1977

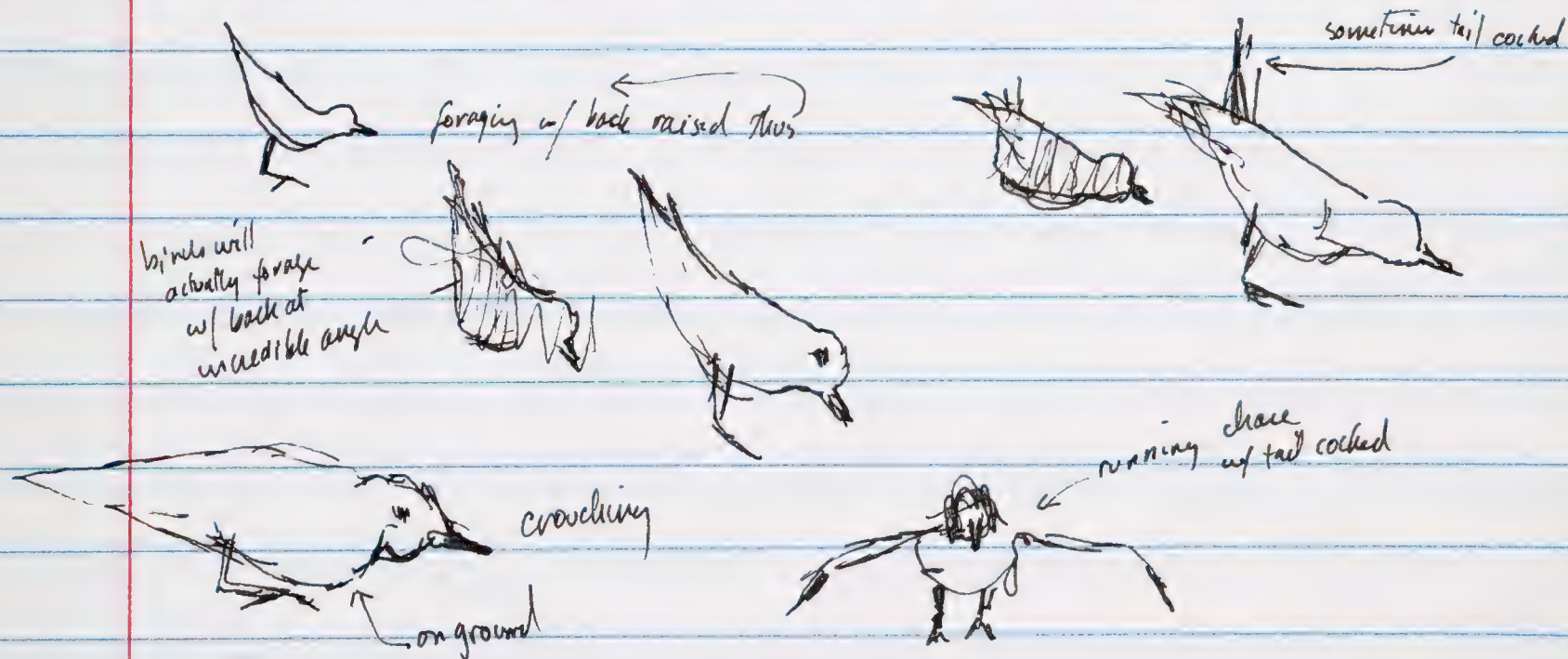
Calidris pusilla

Proctor Bay, Alaska

phenological notes on this species prior to 28 July are within the Journal. see 5 June, 26 June and 22 July especially.

28 July

we must be near the peak of *C. pusilla* juvenile migration. see ~~the~~ Journal for general observations. flocks strongly concentrated along littoral zone but also present in a few concentrations away inland - e.g. the NANA super pond, a disturbed site out by BP main camp (near Pad F) etc. Flock sizes up to 100+ birds, but many small groups of 5-20 observed. Foraging ~~and~~ largely in littoral *Puccinella* marsh along bare pond/margins in red mud. groups also seen foraging on road in gravel, taking dipterans. heaviest ~~and~~ use seen in area of salt water burned tundra - ponds lining by the margin, opened out in old *Carex* marsh blackened by ~~the~~ ~~and~~ *Carex* and moss (*Deschampsia*?) killed by salt water. a few newly established *Puccinella phragmitoides* plants moving into area. Ponds filled with dark copepods and fairy shrimp. very localized aggression: behavior verging on territorial with foraging by undisturbed individual limited to ~2 m of shoreline, with a garrison toward intruders, and several behaviors highly reminiscent of classic calidridine territoriality:



Thus there were good border displays involving ~~not~~ simultaneous crouching by 2 individuals. no good tail down however, even though I looked explicitly for it. the frenzy of the high density scene with 30 or 40 birds packed into a distance of 30 m may have - almost certainly - precluded the full expression of a well developed array.

29 July

^{more} almost as quickly as they came, they're ~~gone~~ gone. #'s of pusilla juveniles were down markedly today, sufficiently so that qualitatively we felt certain in a drop in abundance.

JPMyers
1977

Calidris pusilla

Prudhoe Bay, N. Slope, Alaska

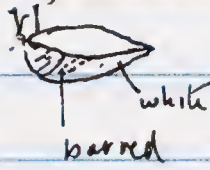
30 July

well yesterday's entry may have been an exaggeration. There still are some pusilla juveniles around, largely in the littoral but also in isolated tundra low wetlands and lake margins (bare mud surfaces). But they definitely have ceded.

JPMyers
1977

Heteroscelus brevipes

Elson Lagoon, NARL, Barrow, Alaska

19 June 1700 - Bob Boekelheide found a polynesian fatter this p.m. + led us to it. Unfortunately, we don't have a complete set of collecting equipment, something to be remedied tomorrow. However all four of us got excellent looks at key characters: ① it is a Heteroscelus w/o doubt: ~~dark~~ size of Tringa flavipes but shorter legs (legs yellow), a straight thick bill, dark grey & back w/o flecking of Tringa, barred chest, ~~greyer~~ but the belly changes abruptly from barring to almost pure white.  Back is not as dark as H. incanus. bill pale at base. Called in flight when spooled with an ~~spott~~ Actitis like note. ^{upper} Tail is noticeably lighter than back in flight, but not white.

20 June Boekelheide collected above herd this p.m. at ~~Elson Lagoon~~ my insistence. Specimen going to U of A. museum.

JP Myers
1977

Calidris melanotos

TRANSECT 9, Barrow Alaska

29 May

walking along on transect sample at 1030 saw first pectorals of season, a flock of 15 ♂♂ flying NE. 1110 spooked another flock of 20 from nearby, may have been same group with additional members. none displaying yet. there were all ♂♂ (by voice + size) but lacked extensive chest development. 1430 - GRID 1 found a ♂ melanotos w/ developing chest. no hooting. 1 ♀ also in area w/ flock of ducks.

30 May

given their precipitous arrival yesterday perhaps I should not be surprised. But I actually did expect some hooting today, all to no avail. saw fewer than 10 melanotos all day.

31 May

still no hooting ♂♂ at Barrow, and in fact precious few Pectorals at all.

Atkasook, Meade River, North Slope Borough, Alaska

stepping off the plane at 1730 I was immediately impressed by the activity of ♂ melanotos. They are displaying actively + are quite dense, although perhaps not so dense as in good Barrow habitat during 1975 or 1976. ♀♀ are also evident, and several are seen associated sufficiently settled to suggest they were laying.

1 June

throughout day witnessed much melanotos activity. Constant hooting. in LCP areas densities really high + comparable to Barrow based on a few observations of territory size. One ♂ (watched in (v19,38)) defended an area bounded on all sides by other ♂ no more than 150 m ~~distance~~ radius. Pectorals present in most habitats save the dry ridges (see table in journal). ♀ not incubating yet, but definitely ~~settled~~ localized. However significant #s flying past to NE from here.

3 June

saw ♀ giving hooting ♂ a tail up (buzz off) display. Does she have a complete clutch? Many ♀♀ are around now, still hit flights of ♀♀ continue to NE (see journal).

4 June

unable to locate any nests yet even though ♀♀ obviously localized. ~~large numbers~~

JP Meyers
1977

Calidris melanotos

Atkasook, Middle Meade River, N. Slope Borough, Alaska

4 June
(cont'd)

♂♂ hooting, grouse displaying (at all levels of intensity from simple vocalization to intense strutting w/ rolling grouse call). But ♀♀ continue to fly by to NE. In fact today I saw a number (>50 ♀♀ in separate flocks of 5-15) even during the day. A Hyp: these ♀♀ are looking for concentrations of ♂♂. The ♂ spend a lot of energy chasing few ♀ flocks when they move by, flying up at them, hooting in chase flight + finally wheeling back to their territory. Could this be the way that opportunism is expressed? - go to a place w/ many ♂♂? I am struck by the similarity in movement between melanotos and Stercorarius pomarinus (see journal 1 June).

Pectoral habitat: ♂♂ almost everywhere, including along ridges. ♀ more restricted, largely in areas comparable to Barrow.

5 June

♀♀ must have clutches by now in many places. ♂ activity down. several ♀♀ scungiving tail up [bug-off] display to ♂♂. Also acting as if they have a ~~nest~~ nest (typical alarm churr).

6 June

Dave Best (camp manager) showed me a complete melanotos clutch ~~to~~ behind the lab. He found it yesterday.

NARL, Barrow, Alaska

7 June

on GRADSBY. Acch! only 3 ♂♂ in area. one paltry hoot. Perhaps 2 ♀♀.

Shuford + Erickson report few melanotos in Barrow area.

Atkasook, Meade River, Barrow Aic

9 June

hooting + other display activity much diminished save in the lowest areas. Along ridges and in earlier melting sites ♂♂ are conspicuously absent. Pox string hoop and lakeside margins are now their most prevalent display sites also observing obvious ♀-♀ aggression much as ~~we~~ I observed last summer w/ ♀♀ w/ broods. Simple chasing, supplantations from around nest area.

Barrow

12 June

jeepers. This a.m. tracked a melanotos ♂ with the largest territory I've ever seen in a pectoral. Tracking data did not include entire territory I think because he swooped out about

JP Myers

1977

Calidris melanotos

NARL, Barrow, Alaska

12 June
(cont'd)

~~200 m~~ 100 m beyond south edge consistently, doing banding display. The tracking area included 10 ha. Inadequate because of the low density - Hooting infrequent, over possibly 2 ♀. Unfortunately the tape abraded after 14 min. I am surprised to see ~~there~~ an appreciable # of transient ♂♂ moving by.

13 June

GRID 4 tracking - did well as one bird ~~there~~ but in afternoon was misled by another. curious events out here, with definite non-territorial ♂ around, inconsistently tolerant of conspecific ♂.

14 June

returned during o.w. to track. did 2 ♂♂, each for 100 minutes (6:14:77-3, 6:14:77-4). They were the easiest ♂♂ to track that I've ever done, because of the small territory + their low activity - virtually no time lost! Also - and probably at the root of it - no ♀, save a questionable ♀ w/ 6:14:77-4 at the onset. Why questionable you ask - because there are ♂♂ around now with poorly developed chits and the behaviors of ♂♂ in this part of GRID 4 are INCONSISTENTLY TERRITORIAL. Thus 6:14:77-3 and 4 shared some area between them, and appeared to feed tolerantly even though only 20 m ^{apart} or so, for several minutes. #3 finally did push #4 off the area, but such lackadaisical supplanting at this time of the year is a NEW thing for me. I suspect that it has to do w/ a paucity of ♀♀. To what extent might the ~~lack~~ territoriality be due to habitat? After all, GRID 4 is pretty low - being heavy on Carex - Eriophorum rupestris and ponds. But last year even these sites were defended assiduously. ♀♀ are the key. NO ♀, NO defense. Not immediately, but if the chances of ♀ are low enough then no defense will occur. the ^{morning} ~~afternoon~~ melanotos of 13 June on GRID 4 has a territory at the base of garden. It may get a reasonable rate of ♀ intrusion, making defense worthwhile.

15 June

while tracking ♀ fulmar on G4 ~~perhaps~~ saw 1 flock 10 ♀ melanotos go by and ~~also~~ come across several ♀ on grid. Has there been an influx? If so, how have ♂♂ responded? Dick also saw 1 flock.

17 June

great deal of ♂ melanotos activity on GRID 4, with several ♀ settling in area. Had we been working on pectorals we would have caught it all.

JP Myers
1977

Calidris melanotos

NARL, Barrow, Alaska

19 June

good tracking session today on GRID 9: 4 ♂♂ with consistently defended, small territories (see tracking data book). However there was only 1 (ONE) ♀ seen on the ground. obvious surplus ♂♂ moving around. a flying ♀ brings up ♂♂ from at least 500 m. away.

20 June

poor tracking on GRID 4: it took me several tries to find a territorial ♂ in one part of the grid. There are at least 2 areas out there where no territorial birds hold sway. nonterritorial groups meander through w/o being disturbed. No ♀♀ on ground. much chasing if a ♀ detected in the air. one ♂ strayed repeatedly into neighbors territories even though it was also territorial.

2

1050 began following ♂ that within 9 minutes revealed itself as an NTB by (1) being supplanted from local foraging site then (2) foraging w/ 2 other ♂♂ that also had been supplanted. This ♂ confused me at first by grouse-displaying at one of the other ♂♂, even to the extent of tail cocking.

Prophet Bay, N. Slope, Alaska

21 June

♂ melanotos a conspicuous bird here still reproductively active. There are more ♀♀ here than at Barrow, and ♂♂ are probably equally or more dense than at the GRID 4 hot spot. Certainly more dense than birds on GRIDS 1 or 2. Curiously few aerial chases, even though looting is regular if infrequent. Several ♂-♂ border interactions.

22 June

Pectorals do not use pricks or upland tundra, at least at this time of the year. Put water on it and provide a few mounds (they need be no higher than 20-30 cm) and you'll have a ♂. Densities may be higher in the ~~upland tundra~~ tundra mosaic w/ strong ~~topographic~~ microtopographic variation. But ~~can~~ tran 2 (see journal map) which is pure low wet tundra had a reasonable density also, as well as more ♀♀ than I'd seen all summer.

Barrow, Alaska

27 June

♂♂ arriving in flocks, swamping over GRIDS 1, 2, 3, 4. Some ♀♀ in these flocks also. Few display activities still apparent, and where it is it is sporadic. Tracking is over.

30 June

~~with~~ many ♂♂ in lowlands south of town. possible feeding territory by lake margin.

JPMyers
1977

Calidris melanotos

Barrow, Alaska

1 July

what gives? We are being invaded by melanotos. That in itself is not unusual for this time of the year. What puzzles me is the # of ♀♀ in the flocks, obviously not breeding locally.

5 July

melanotos numbers down abruptly since 1 July (146 total ♂+♀ decreasing to 37 on transects. ♀♀ in mixed flocks w/ ♂♂ 2♂/1♀ more or less. On trans 6-10 today found no more than 3 ♀♀ w/ broods ^{behaving as if} - none of which I saw. (see Journal).

11 July

a second peak in ♂ numbers arriving now strongly mixed w/ ♀♀. See transect summaries. it appears that unit (17,1)(18,1) and (19,1) ^{of 73} are used each year by ♂ flocks, located as they are on the downwind (SW) side of South Meadow Lake. A flock of over 20 ♂+♀ melanotos on the lakeshore + immediate marsh there, mixed w/ a few Mauri and 40+ Ph. fulicaria ♂. melanotos is now scattered widely over most transects in loose flocks. 45 ♂♂ on T1-5 this a.m.

14 July

SW side of Meadow Lake

out on S Meadow Lake 1400. territorial ♂♂, probably territorial ♀♀ here, scarfing up wind blown material along the lake shore. Territories are small, less than 10m long and 1m wide - i.e. they are classic feeding territories. over 30 melanotos here doing same. They have been here since the winds began 6 days ago. Collected 2 ♀♀ to look at molt + gonad condition. NTB present also

see page
for notes see next
page

15 July

melanotos still territorial here along S. Meadow Lake. watched for 20 min as several supplanted consistently. Territories smaller than I originally estimated, some were less than 3m long. Good boundary defenses seen - tail down, crouch, chasing and supplanting. Some not certain but ♀♀ also involved, probably territorial, certainly aggressive. much aggressive vocalization, churring. one ♂ giving something almost like a continuous clatter in flight, hovering over a very local spot (actually flying into the wind not making any forward progress, 1m off ground) when a flock would in probably because I was present. I sat down to observe but they failed to adapt to my proximity. ♂♂ fulicaria present along same lakeshore in same site not supplanted (nor supplanting - showing no sign of aggression)

JPMyers
1977

Calidris melanotos

Barrow, Alaska

16 July

notes on ♀♀ collected 14 July

#1 69.2 g. incubation patch bare but refeathering. longest pin feathers along periphery 8 mm long. ~~100%~~ Scapulars, 2° coverts very worn. body molt w/ pin feathers on neck up to 6 mm. largest follicle to 1.5 mm. ovary small.

~~most~~ most follicles within size range of 0.5 to 1 mm.

#2 68.7 g incubation patch bare, refeathering, length of feathers to 10 mm along periphery. feathers sparse but present throughout incubation patch. long pin feathers on lower neck along breast line; ~~but~~ but molt not as far advanced as ♀ #1. follicles to 1 mm, ~~of the~~ some yellow. smaller ovary than other ♀.

summary: neither w/ pronounced evidence of breeding. both with brood patch being replenished w/ feathers, but more advanced in #1.
6

16 July

Wade River

Ericsson + Shuford report high numbers of migrating melanotos around the Wade River. flocks of ♀♀ - mixed w/ ♂♂ moving NE. few stopping to feed, save for a large concentration between ~~Pog~~ Pingo and Pongo Lake (7,24).

Produce Bay

19 July

precious few melanotos about save for the occasional broody ♀. One flock of ♀♀ (20) seen yesterday when we arrived. On today long hikes no flocks, but one group of 5 ♂♂ foraging in dispersed pattern on lake shore (SW side) w/ Artemisia and Xema. Could be TB's but could not force interaction.

20 July

saw several flocks of melanotos (see Journal). 1 of 20 mixed ♂+♀, another 5 ♂♂, then encountered low densities of broody ♀♀ around lake margins.

Pt. Storckesen

21 July

1 flock 50+ pectorals, mixed ♂♀. Broods ♀ present. talking w/ 2 of Dirkson's people found out they had a bimodal nesting season, with a resurgence of display in

J. P. Vayns
1977

Calidris melanotos

Pt. Storkerson, Prudhoe Bay, Alaska

21 July
cont'd

late June / early July. They found only 1 nest this year, one still being incubated 4 days ago. They have not detected an overwhelming abundance of migrating melanotos.

Prudhoe Bay

28 July

moulting ♀♀ still encountered in lowlands particularly out by-west dock region. But as of today we are finding juvenile melanotos, and the overall abundance of ♀♀ appears to be dropping.

31 July

see Journal

8 Aug

Haul Road, N. Slope, AK

see journal. Juvenile melanotos as far inland as lower Brooks foothills in disturbed, ponded areas. But not many before reaching coastal plain.

Atkasook on Meade River

13 Aug

juvenile melanotos apparent on tundra in low Carex unpolgonized marshes, along bare mud at lake margins, particularly where there is overhanging vegetation, and particularly flying over in small groups - 5-15 birds - headed east.

18 August

very few melanotos still around, all juveniles. However I still see a few flocks headed E.

JP Myers
1977

Phalaropus fulicarius

GRID 1, Gas Line Road, Barrow, Alaska

29 May ~2000 Dick Erickson reports 1 ♀ fulicarius this evening.

Atkasook, Meade River, N. Slope Borough, Alaska

June ~~29 May~~

Phalaropus in some areas abundantly, but w/ remarkably skewed sex ratio. We observed few males out of the 50+ ♀♀ in various areas, and estimate the S.R. to be at least 5:1 if not 8:1 ♀:♂. In one location w/ 2 ♂♂ and 120 ♀♀ we watched 2 ♀ fight for 3 continuous minutes in one spot literally on top of a ♂. The ♀♀ were violently pummeling on another, grappling w/ bills, hitting w/ feet + wings, falling down repeatedly. The ♂ crouched down so low under them it was often invisible in the tussocks. After having at it in one place they flew when the ♂ ♀♀ stopped fighting + the ♂ left, followed by the ♀♀ who quickly began fighting again. Such ferocity I've never seen at Barrow.

4 June

obviously paired fulicarius common now on tundra ponds. many more ♂♂ around than before, but still a ♀ biased sex ratio. Most appear to be using small ponds with Carex edges but they also can be seen along the larger lake edges. Much more numerous than Ph. lobatus
Barrow, Alaska

7 June

very few around, heavily ♀ biased sex ratio

Atkasook, Meade River, N. Slope Borough

9 June

phalaropus copulating

10 June

I have seen several instances of ♂ supplants even though it is obviously still paired. occurs when "intruder" flies in to local settled area. ♂ flies up + begins to fling its feet out, forcing the other bird to fly away, then it returns to ~~pair~~ mate, ~~pair~~ goes into a preening chorus, + finally becomes quiet.

14 June

Barrow
Began tracking fulicarius on Grid 4 this p.m. Located 2 empty but in progress nests, one ♂ w/ complete clutch. a heavy (10+) of ♀♀ moving about in addition to at least 10 pairs. See tracking records.



J.P. Myers
1977

Phalaropus fulicarius

GRID 4, NARL, Barrow, Alaska

17 June

observed — in 4, 8 of GRID at 1700, acting as if there were no ♂ in her life. she can't be done w/ a clutch, as tracking her 16 June showed she was still investigating nest cups. Is this a regular feature in a stage of fulicarius ♂ ♀ relationships? — once a ♀ begins laying the pair spends time apart? tracking g:y today had her separating from ♂ for considerable periods (15-20 min) and then rejoining. What gives? Also had ♂ of g:y attempt to copulate w/ other ♀ — not successful but copulate. what gives? Am impressed also by the ways of ♀♀ w/o males — r:r. His around jumping on other ♀ backs.

Produce Bay, North Slope, Alaska

21 June

feel phalaropus dot the lowland habitat here, but I've yet to find an area with densities comparable to Barrow GRID 4 in its heyday. That may be due in part to the ~~late~~ date + reduced conspicuousness of birds after the height of breeding.

22 June

did a little better on 'rope' densities today and set transect 3 (see map in journal). Habitat is low wet tundra with a few interspersed ponds, ^{as well as} hummocks up to 20 cm height. 95% water cover. Vegetation appears to be largely Walker type M4 (Carex aquatilis, Carex saxatilis, and Scorpidium scorpioides). fulicarius has also appeared in much more hummocky regions with small trough ponds, and in somewhat more mesic lowland tundra complex featuring Carex, Pedicularis. All together there is no suggestion that RP's are doing anything different here than at Barrow.

Barrow, Alaska

28 June

any discussion of space-use by RP's must face the observed fact that nests can be located far from the foraging ground. e.g. ^{several} birds foraging on GRID 4 ^{are} ~~may~~ be nesting on gasoline ridge. The ♂ flies of the nest to forage, going several hundred meters.

15 July

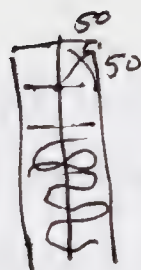
♂ fulicarius foraging along SW side of S. Meadowlake where melanotos are territorial. (see melanotos sp account) ♂ fulicarius not aggressive at all, with constant changes in ~~and~~ respective positions of different males along the lakeshore.

JPMyers
1977

Phalaropus fulicarius

Prudhoe Bay, Alaska

- 20 July broody ♂♂ encountered at low density in all extensive wetlands, but never abundant. ~~at~~
Approximately same density as Ph. lobatus. Very few flocks of ♂♂ apparent, save several
flying over. "
- 21 July one large flock (30+) of reds - probably all ♂ - at Point Storkersen. Broody ♂♂
found en route
- 22 July fledged red, flying strongly.





JPMyer,
1977

Tryngites subruficollis

GRID 3, NARL, Barrow Alaska

30 May


grid unit (8,7) found 4 buffies at 1530. At least 2 ♂♂, both large + lustrous buff, displaying frequently in cup display  and single wing up . How gorgeous! Heard 2 different calls, one the usual low chuck but then another which I'd never heard, and one much more suggestive of the buffie's *Calidris* origins. a raspy ~~alarm~~ note almost a cross between *alpina* and *melanotos*, about the length of a typical *melanotos* flight call. Rough and rather nasalish. At 1730 Erickson found 3 T.s. in the same spot (I'd told him about them).

^{N. Slope Borough}
Atkasook, Meade River, ~~Barrow~~ Alaska

2 June

0900 1 Buffy on a ridge behind camp.

1300 (41,25) a buffy lek w/ at least 5 ♂♂ spread over 500 m² of tundra. tremendous displaying activity. Flouncing about, Flopping up and down w/ awkward wing beats. Parabola displays, single + double wing raises. But it bothers me that there is so much interaction between ♂♂ - not just visual. Certainly the displays of one will evoke those of another at quite a distance. But they also visit, fly off w/ one another, and don't seem to be as localized as a good territorial lekking spp should be. Se me comprends pas.

1630 coming back from the river came across more *Tryngites* displaying activity, this time in (26,39). At least 4 displaying birds, perhaps more. Again a peculiar lack of space-specificity in activity. mixture of aggressive interaction w/ displays. But not obviously consistent. Habitat much better than I expected, with low wet poxy - Salix pulchra over much of the area. It is quite possible that this area is continuous w/ the one we found this a.m. - in fact it is almost certainly so. Is that how the total areal extent includes a lek 750m x 500m. The flop display is a very awkward flouncing up + down in place - flapping wings, jumping, getting ~30-60 cm off the ground. It looks as if they are just trying to make themselves as conspicuous as possible. They also use wing-ups in several ways: first just by standing stationary, raising + lowering one wing or simply holding it up  (looking from head on). They

JP Myers
1977

Tryngites subruficollis

Atkasook, Meade River, North Slope Borough, Alaska

1 June
(cont'd)

run while holding their wing up also. ~~then~~ Another more subtle display entails a bird with others which stands very erect and holds its tail slightly down



They walk around like this. Also have seen aggressive crouches involving 2 birds, ~~as~~ also classic calidridian aggressive tail-lowering.

3 June

back in same area this p.m. placing transects. walked extensively through both sites, but found buffies (3) only in 1: the (26, 37) region near the end of Transect 8.

Active displaying.

(4, 32) Meade River

5 June

2 buffies foraging on Alecton heath at 1600

~~1 June~~

(26, 37)

9 June

out in buffie dawn today at 1030. 1 ♂ encountered en route. 1 ♂ in same place as last encountered in (26, 37) - displaying actively but no Parabola. wing up seen, flutter flight, and a very high flopping. the buffie displayed + fed in an area for 10-15 minutes (or less) and then flew a short distance (100 meters) to another. repeated ~ 6 times. then flew off north along the ridge, perhaps to another display site. It looks as if the bird is adjusting its display to decreased density of birds in area, making them visible at ~~larger~~ longer distances.

Produce Bay, N. Slope Alaska

21 June

1 buffie flying by

22 June

ditto

23 June


0800
again saw a buffie cross the road, this time in the same place as yesterday, a point where the little Putuligayak river ~~was~~ crosses close to the road, upstream (south) from its crossing. Before I'd gotten out of the car the ♂ (very big + bright) was single wing flashing + flutter jumping. Walked over, found another ♂ + a smaller bird, probably ♀. the 2nd ♂ was following this ♀, parabolaing mostly within 20 cm. ♀ ignored him I think, and flew off. that ♂ disappeared. I returned to 1st ♂ (40 m away) who remained for ~ 3 min + then flew (some helicopter flight) ~ 70 m away to another foraging position. I left. 1020 found ♂ on T-4 on river bank. ^{LATER + far away!}

JPM Myers
1977


Tryngites subruficollis

Prudhoe Bay, N. Slope, Alaska

23 June
(cont'd)


2130 walking around the "Barrow analog" (see journal) found 2 ♂ Tryngites displaying - a good helicopter flight with legs hanging loose  in flight (yes that's in flight). A bit of flutter-jumping. no ♀

24 June

Tran 2 - ♂ Tryngites ⁰⁸³⁰ displaying on a pingo! first saw flutter jumping, then wing flash. It was near the cut but moved off quickly. 1100 passing near same pingo saw 2 ♂♂ in border display:  : they flew up together rising ~ 20m above ground vertically as diagrammed, fluttered way up high, then returned down more or less on same trajectory.

25 June

Buffies all over transects, beginning w/ #8 + 9 in morning. ♂♂ conspicuous at several hundred meters in border display flight - no their spines hang up. Here 2 birds fluttering together at 50m+ off the ground.

Buffy Pingo (see map 26 June journal) - buffies coming out the gump stumps. began at 1500 when I picked up on T11, foraging at the top of the creek basin. then as I continued along T11 I could see ♂♂ over Buffy Pingo in border display. ~~Finally~~ then on T10 I recorded another. Finally, returning toward the road 6 ♂♂ began hopping + jumping all around, generally chasing, calling - tic-tic-tic in the air as they came down from the border flight w/ outstretched wings, head jerking (a flying Parabola??) Also giving flight chunk. Stumbled over nest on side of pingo within display area - 4E w/ a delicate + very tolerant ♀. Nest in upland tundra, some *Eriophorum vaginatum* present but not a good stand of E tussock ~~land~~ tundra. A bit more moist than simply that. *Salix reticulata* ^{leaves} lining nest. Then at 1830 doing T5 I encountered 3 displaying ♂. I was virtually beneath a pair of ♂ in vertical border flight. heard nothing but as they flew out of it one of them went into a very pronounced ~~skate~~  shape + dove back to the ground, something reminiscent (strongly) of a *Calidris ruficollis* glide flight (see 1976 notes).
29 July
have been in Prudhoe since 18 July w/o seeing Tryngites (see daily list). then today in stabilized dense veg. East Dock saw one adult w/ ~ 8 *Pluvialis dominica*

JP Myers
1977

Tringa subruficollis

Prudhoe Bay, Alaska

6 August

Sag River transect (#39) stumbled over a ♀ w/ brood, probably just one chick. noisily (for a buffy) mobbed me, flying around churring, then landing + tucking bill. Unable to locate chick after seeing it. 3 other buffies seen in area. ~~after~~

tran 35 - more buffies - juveniles with orangish tinge to side of face + pronouncedly scaly back feathers. Flock of 4 seen off transect

Michelle ~~the~~ Pingu - tran 8 came upon ♀ w/ brood of 4. no vocalization to mobbing save a quiet chink note, flew about ~~briefly~~ briefly as I handled ^{one} chick (primaries to 3 cm), but did little more than remain alert otherwise

JPHyers
1977

Pluvialis squatarola

Atkasook, Meade River, North Slope Borough, Alaska

31 May

Pluvialis displaying this evening (1900) in my first jaunt around the Meade River tundra. Display call lacks the ringing quality of dominica, and is instead a plaintive ~~note~~ 2 syllable whistle $\sim \sim \sim$ about 1/sec.

in a minor key. Butterfly flight exaggerated. Other ~~more~~ vocalizations also.

Commonest along ridges. Paired. ♀ obviously duller than ♂.

4 June

I reaffirm my above notes about habitat of squatarola - definitely a ridge bird but some individuals also using lowlands, even ^{side} lake marshes. Seen one aggressive interaction w/ dominica in which dominica came out winner.

7 June

Squatarola actually occurs quite regularly in low marshes.

Proskoc Bay, N. Slope, Alaska

22 June

I had expected to find P. squat. more commonly than I have so far - in 2 days 2 birds. One was displaying on a pingo in typical flight display - it supplanted a P. dominica. The other fed by a low lake margin.

24 July

see JOURNAL. P. squatarola adults conspicuous now on tundra, moving in small flocks into low wetlands. A few still broody.

MEADE RIVER

12 Aug

see journal. Largely unmated adult squatarola still tending broods + intraspecifically very aggressive, chasing other squatarola away. Some broods tended by 2 adults. Habitat use widespread but juveniles appear to be in marshy areas. Juvenile plumage tawnyer than ~~P. dominica~~ dominica and white tail patch readily visible. Even though juveniles have fledged adults are still tending young, mobbing.

18 August

It's been 2 days since I heard ~~any~~ broody ♀ squatarola, one hounding a pair of jaegers near camp. Have today found flocks of 2-4 squatarola juveniles moving around together. foraging in uplands (?), flying by. This may be the squatarola migration.

JPMyers
1977

Calidris mauri

Atkasook, Meade River, N-Slope Borough, Alaska

9 June

western sandpipers are still displaying on the tundra today (see summary in 5-6 June Journal for previous obs). I find their habitat distribution puzzling: they certainly are most apparent in slopes near low flat wet areas or ponds + along stream courses. But that description could be used to fit almost any patch of tundra here. I've even found what is almost surely a nesting bird near the crest of the ridge in (14,30). The effect is to produce a decided patchiness to their dispersion which cannot be simply explained on the basis of habitat distribution. There are hot spots of displaying birds - areas where repeatedly we find active ♂♂ in chase. And these sites often ~~are~~ are unpredictable from tundra physiognomy. The amount of aerial chasing is stupendous - groups of 3-4 or more chasing around whinnying, or a ♂ fluttering above a site, croaking with its feet dragging. And their ground displays - spread wings, raised tails are just as elaborate as possible.

Myers, J. P.

1977

Alaska

Daily Lists

JP Myers
1977

Daily Lists

①

NARL - POW MAIN - BARROW - ISP (everywhere accessible)

27 May

~~Sp.~~ Somateria spectabilis - 1000+

Somateria mollissima -

Pluvialis dominica - 2

Arenaria interpres - 7

Larus hyperboreus - 100++

Junco hyemalis 2

Spizella arborea 1

Zonotrichia leucophrys 2

Calcarius lapponicus 20+

Plectrophenax nivalis many

28 May

GRIDS 2, 3 - Trans 5, 2, 4

Somateria spectabilis - 100's

Pluvialis dominica 2

Arenaria interpres 2

Larus hyperboreus 100++

Anthus spinoletta 1

Calcarius lapponicus

Plectrophenax nivalis

~~Parus montanus~~

Parus hudsonicus

29 May

a.m.

TRANSECTS 1, 3, 6 → 10

Somateria spectabilis 1000+

Somateria mollissima 100+

Anser albifrons 1

Pluvialis dominica - displaying 5

Colinus bairdii 3

C. melanotos 35 ♂♂ (2 flocks)

C. pusilla

Larus hyperboreus

Acanthis sp

Passerculus sandwichensis

Calcarius lapponicus

Plectrophenax nivalis

p.m.

POW MAIN, Britten area, DUMP

Anser albifrons Anas acuta - 30 ♂+♀

Pluvialis dominica Anas carolinensis ♀

Colinus bairdii - 12

C. bairdii

C. melanotos ♂♂ + 1 ♀

C. pusilla

Arenaria interpres

Larus hyperboreus stenopus pomarinus - 5

Oenanthe oenanthe 1 ♂

Motacilla flava 2

Junco hyemalis

Calcarius lapponicus

Plectrophenax nivalis

Dendroica coronata coronata ♂

30 May

GRIDS 1, 2, 3

Somateria spectabilis

Somateria mollissima

Pluvialis dominica - >10 displaying ♂♂ and several ♀♀

C. alpina -

C. melanotos

C. bairdii

C. pusilla

* Tryngites subruficollis - 4

Arenaria interpres

Larus hyperboreus

Oenanthe oenanthe

Grid 3, tran 1

Chondestes coerelescens

Somateria spectabilis

S. mollissima

P. dominica

C. alpina

C. melanotos

C. bairdii

C. pusilla

Arenaria interpres

Larus hyperboreus

Acanthis sp

Calcarius lapponicus

Plectrophenax nivalis

Acanthis sp

Turdus migratorius

Passerculus sandwichensis

Spizella arborea

Calcarius lapponicus

Plectrophenax nivalis

31 May

SP Myers
1976

Snowbunting land 110 138423

2

Daily list

Atkasook, Meade River, North Slope Borough, Alaska

31 May

100+ Lagopus lagopus
5 L. mutus

Anser albifrons 50	Phalaropus fulicarius 20	Motacilla flava <10
Anas acuta 10	Arremonia interpres 20+	Acanthis sp. 1
Clangula hyemalis 1	Limnodromus scolopaceus 50+	Calcarus lapponicus 100+
Pluvialis dominica 50+	Larus hyperboreus 20	Plectrophenax nivalis 2
P. squatarola 20+	Sterco. pomarinus 5	
C. alpina 50+	Nyctea scandiaca 1	
C. melanotos 100+	Zonotrichia leucophrys <10	
C. mauri 50+		
C. pusilla 10+		

1 June

Atkasook

Gavia adamsii	Lagopus lagopus	C. alpina	Ph. lobatus
Branta bernicla	L. mutus	C. melanotos	St. pomarinus
Anser albifrons	Pluvialis dominica	C. pusilla (nest cup)	St. parasiticus
Anas acuta	P. squatarola	C. mauri	St. longicaudus
Aythya marila	Arremonia interpres	Tryngites subruficollis LEK	Larus hyperboreus
Clangula hyemalis	Catidris alpina	Limnodromus scolopaceus	Sterna paradisaea
		Phalaropus fulicarius	Nyctea scandiaca

→ Astioflammeus

Motacilla flava

Acanthis sp (nest cup)

Passerculus sandwichensis

Zonotrichia leucophrys

Calcarus lapponicus (nest cup)

Plectrophenax nivalis

Atkasook

2 June

* *

Gavia adamsii 1	C. alpina	Larus hyperboreus
Anser albifrons 50+	C. melanotos	Sterna paradisaea
Anas acuta 50+	C. pusilla	Nyctea scandiaca
Anas platyrhynchos * 1	C. mauri	Motacilla flava
Clangula hyemalis	Tryngites subruficollis	Acanthis sp.
Aythya marila 2	Limnodromus scolopaceus	Passerculus sandwichensis
Lagopus lagopus 100+	Phalaropus fulicarius	Zonotrichia leucophrys
L. mutus 10+	Ph. lobatus	Calcarus lapponicus
Pluvialis dominica	St. pomarinus - migrating	Plectrophenax nivalis
P. squatarola	St. longicaudus > displaying	
Arremonia interpres	St. parasiticus	

Atkasook

3 June

Gavia adamsii	C. alpina	Larus hyperboreus
Gavia sp P	C. melanotos	Xema sabini - 2
Anser albifrons	C. pusilla	Sterna paradisaea
Anas acuta - 1 nest w/ 1 egg	C. mauri	Motacilla flava 5
Anas platyrhynchos (♂ & ♀)	Tryngites subruficollis - 3	Acanthis sp 20+
Clangula hyemalis	Limnodromus scolopaceus	Passerculus sandwichensis 10+
Lagopus lagopus	Phalaropus fulicarius	Zonotrichia leucophrys 10+
L. mutus	Ph. lobatus	Calcarus lapponicus 100+
Pluvialis dominica	St. pomarinus	Plectrophenax nivalis 10
Pluvialis squatarola	St. longicaudus	
Arremonia interpres	St. parasiticus	

4 June

* *

Gavia adamsii - flight display	C. melanotos	Astioflammeus
Gavia archia - fly by	C. pusilla	Corvus corax
Anser albifrons	C. mauri	Motacilla flava
Somateria spectabilis - paired	Limnodromus scolopaceus	Acanthis sp
Anas acuta	Phalaropus fulicarius	Passerculus sandwichensis
Anas crecca carolinensis	Ph. lobatus	Zonotrichia leucophrys
Clangula hyemalis - paired	St. pomarinus	Calcarus lapponicus
Lagopus lagopus	St. longicaudus	Plectrophenax nivalis
L. mutus	St. parasiticus	
Pluvialis dominica	Larus hyperboreus	
P. squatarola	Sterna paradisaea	
Arremonia interpres - uncommon		

JPMyers
1977

Daily List

3

Atkasook, Meade River, North Slope Borough, Alaska

TRAW 1,2,3,4,14

5 June

Gavia arctica display
Gavia adamsii
Anser albifrons paired
Branta leucopsis
Clangula hyemalis - 50+
Somateria spectabilis - 10
Somateria mollissima 5
Anas platyrhynchos 2 (♂+♀)
Anas acuta 80 100+
Lagopus lagopus 50+
Lagopus mutus 10
Anas clypeata 8+2

Pluvialis dominica 25+
P. squatarola 25+
C. alpinus
C. melanotos 100+
C. mauri 20+
C. pusilla 50+
Tryngites subruficollis - 2
Limnodromus scolopaceus 50+
Phalaropus fulicarius 50+
Ph. lobatus 20+
St. pomarinus 20
St. parasiticus 4
St. longicaudus 20

Larus hyperboreus 20
Xema sabini 2
Sterna paradisaea 20+ - carrying fish
Motacilla flava 5 - display
Acanthis sp. 10+
Passerculus sandwichensis 10+
Zonotrichia leucophrys 5
Calcarius lapponicus 100+
Plectrophenax nivalis <10

6 June

Gavia adamsii - 10
Gavia arctica - 2
Anser albifrons - 10+
Clangula hyemalis 30+
Somateria spectabilis - 10+ - paired
Somateria fischeri - 8 pairs in 1 flock
Anas acuta 50+
Fulco ruficauda - 1 white
Lagopus lagopus
Lagopus mutus
Pluvialis dominica 20+
P. squatarola 20+
C. melanotos 50+

C. alpinus - 50+
C. mauri 10+
C. pusilla 50+
Tryngites subruficollis - 4
Limnodromus scolopaceus
Phalaropus fulicarius - 50+
Ph. lobatus - 20+
St. pomarinus 10
St. parasiticus 5
St. longicaudus 10
Larus hyperboreus 20
Xema sabini 1
Arenaria interpres

Sterna paradisaea 5
Motacilla flava 5
Acanthis sp 20+
Passerculus s. 10+
Zonotrichia l. 5
Calcarius lapponicus 100+
Plectrophenax nivalis <10

Barrow, Alaska

7 June

Anser albifrons 1
Clangula hyemalis 10
Somateria spectabilis 5
Polysticta sklereri 2
Anas acuta 10
Anas americana ♂+♀
Pluvialis dominica - 2
Arenaria interpres 1

Calidris alpina 20
C. melanotos 10
C. pusilla 20
Phalaropus fulicarius 10
Larus hyperboreus
Passerculus sandwichensis
Calcarius lap
Plectrophenax nivalis

Atkasook, Meade River, Barrow, AK

8 June

Gavia arctica
Gavia adamsii
Anser albifrons
Clangula hyemalis
Somateria spectabilis
Anas acuta
Lagopus lagopus
Lagopus mutus
Pluvialis dominica
Pluvialis squatarola

C. melanotos
C. alpinus - 1 molting immature primary
C. pusilla
C. mauri
Limnodromus scolopaceus
Ph. fulicarius
Ph. lobatus
St. pomarinus
St. longicaudus
St. parasiticus

Larus hyperboreus
Xema sabini
Sterna paradisaea
Motacilla flava
Acanthis sp
Passerculus s.
Zonotrichia l.
Calcarius lap
Plectrophenax nivalis

Daily List

Atkasook, Meade River, North Slope Borough, Alaska

9 June

<i>Gavia adamsii</i>	<i>C. melanotos</i>	<i>Larus hyperboreus</i>
<i>Gavia arctica</i>	<i>C. mauri</i>	<i>Xema sabini</i>
<i>Gavia stellata</i>	<i>C. alpina</i>	<i>Sterna paradisaea</i>
<i>Anser albifrons</i>	<i>C. pusilla</i>	<i>Motacilla flava</i>
<i>Clangula hyemalis</i>	<i>Limnodromus s.</i>	<i>Acanthis sp.</i>
<i>Anas acuta</i>	* <i>Limosa fedoa</i> or	<i>Motacilla flava</i>
<i>Aythya marila</i> 1	<i>Numenius phaeopus</i>	<i>Passerculus sandwichensis</i>
<i>Somateria spectabilis</i>	<i>Phalaropus fulicarius</i>	<i>Zonotrichia leucorhynchos</i>
<i>Lagopus lagopus</i>	<i>Ph. lobatus</i>	<i>Calcarius lapponicus</i>
<i>L. mutus</i>	<i>St. pomarinus</i>	<i>Plectrophenax n.</i>
<i>Pluvialis squatarola</i>	<i>St. parasiticus</i>	
<i>P. dominica</i>	<i>St. longicaudus</i>	
	very bad look	

10 June

<i>Gavia adamsii</i>	<i>C. alpina</i>	<i>Xema sabini</i>
<i>Gavia arctica</i>	<i>C. pusilla</i>	<i>Motacilla flava</i>
<i>Anser albifrons</i>	<i>Limnodromus s.</i>	<i>Acanthis sp.</i>
<i>Clangula hyemalis</i>	<i>Arremonia interpres</i>	<i>Passerculus sandwichensis</i>
<i>Anas acuta</i>	<i>Phalaropus fulicarius</i> - copulating	<i>Zonotrichia l.</i>
<i>Aythya marila</i> - 2 pr.	<i>Ph. lobatus</i>	<i>Calcarius l.</i>
<i>Somateria spectabilis</i> 4 pr	<i>St. pomarinus</i>	<i>Plectrophenax n.</i>
<i>Somateria fischeri</i> 7	<i>St. parasiticus</i> - display	
<i>Lagopus lagopus</i> - border fight	<i>St. longicaudus</i> - display	
<i>L. mutus</i>	<i>Sterna paradisaea</i>	
<i>P. squatarola</i>	<i>Larus hyperboreus</i>	
<i>P. dominica</i>		
<i>C. melanotos</i>		
<i>C. mauri</i>		

11 June

<i>Gavia adamsii</i>	<i>P. dominica</i>	<i>St. parasiticus</i>	
<i>Gavia arctica</i>	<i>P. squatarola</i>	<i>St. longicaudus</i>	
<i>Gavia stellata</i>	<i>C. melanotos</i>	<i>Sterna paradisaea</i>	<i>Myiaca scandiaca</i>
<i>Clangula hyemalis</i>	<i>C. mauri</i>	<i>Larus hyperboreus</i>	<i>Asio flammeus</i>
<i>Anas acuta</i>	<i>C. alpina</i>	<i>Xema sabini</i>	1/2 way to Barrow from plane
<i>Aythya marila</i>	<i>C. pusilla</i>	<i>Motacilla flava</i> - distraction	
<i>Somateria spectabilis</i>	<i>Limnodromus s.</i>	<i>Acanthis</i>	
<i>Anser albifrons</i>	<i>Limosa haemastria</i>	<i>Passerculus s.</i> - distraction	
<i>Anas chipeata</i>	<i>Ph. fulicarius</i>	<i>Calcarius l.</i>	
<i>Mergus senator</i> (1 ♂)	<i>Ph. lobatus</i>	<i>Plectrophenax n.</i>	
	<i>St. pomarinus</i>		
			Seen from plane 5 km N of Atkasook.

Barrow, NARL, Alaska

12 June

<i>Clangula hyemalis</i>	<i>Pluvialis dominica</i>	<i>Ph. fulicarius</i>
<i>Anas acuta</i>	<i>Arremonia interpres</i>	<i>Ph. lobatus</i> 1
<i>Anas platyrhynchos</i>	<i>C. melanotos</i>	<i>St. pomarinus</i>
<i>Anas crecca</i>	<i>C. pusilla</i>	<i>Sterna paradisaea</i>
<i>Somateria spectabilis</i>	<i>C. alpina</i>	<i>Passerculus sandwichensis</i>
<i>Somateria mollissima</i>	<i>C. borealis</i>	<i>Calcarius lapponicus</i>
<i>Polysticta stelleri</i>	<i>Limnodromus scolopaceus</i>	<i>Plectrophenax nivalis</i>

Evening (GRID 4). ADD:

- Calidris canutus* - 2 pr on gasline ridge. not displaying
- C. fuscicollis* - 2 ♂, 1 ♀ w/ nest on gasline. ♂ active display. 1 egg



Daily list

Barrow, NARL, Alaska

13 June	<p>Clangula hyemalis Anas acuta Pluvialis Anas clypeata Anas americana Pluvialis dominicana Charadrius semipalmatus Arenaria interpres</p>	<p>C. melanotos C. alpinus C. mauri * display on gasline ridge C. fuscicollis - nest C. bairdii 2 eggs C. pusilla Ph. fulvicastris</p>	<p>Ph. lobatus St. pomarinus St. parasiticus St. longicaudus Sterna paradisaea Passeerculus s. Calcarius Plectrophenax</p>
14 June	<p>Gavia stellata - display (1) Anas acuta 30+ Clangula hyemalis 50+ Ana. bairdii Branta bernicla hyperborea (2) Pluvialis dominica (20+) Charadrius semipalmatus (1) Arenaria interpres (10)</p>	<p>C. melanotos 20+ C. alpinus 50+ C. mauri 5 C. fuscicollis 3-3 eggs in nest C. bairdii 20+ C. pusilla 10+ Ph. fulvicastris 25+ St. pomarinus 5</p>	<p>St. parasiticus 2 Larus hyperboreus Sterna paradisaea Passeerculus s. 10 Calcarius 100 Plectrophenax 20</p>
15 June	<p>Gavia arctica - display Gavia stellata " Anas acuta Anas clypeata 2 Clangula hyemalis Somateria mollissima Branta bernicla Branta canadensis 1 Grus canadensis (heard)</p>	<p>Pluvialis dominica Charadrius semipalmatus Arenaria interpres C. melanotos C. alpinus C. mauri C. fuscicollis C. bairdii Ph. fulvicastris Ph. lobatus</p>	<p>St. pomarinus St. parasiticus Larus hyperboreus Passeerculus s. Calcarius Plectrophenax</p>
16 June	<p>Gavia arctica Gavia stellata Anas acuta Clangula hyemalis Pluvialis dominica</p>	<p>Arenaria interpres Charadrius semipalmatus C. melanotos C. alpinus C. mauri C. pusilla</p>	<p>C. fuscicollis C. bairdii Ph. fulvicastris Ph. lobatus (2) St. pomarinus Sterna paradisaea Larus hyperboreus Calcarius Plectrophenax</p>
17 June	<p>Gavia arctica Anas acuta Clangula hyemalis Somateria spectabilis Pluvialis dominica * Charadrius vociferus * Arenaria interpres</p>	<p>C. melanotos C. alpinus * C. canutus 1 * C. mauri C. bairdii C. fuscicollis C. pusilla</p>	<p>Ph. fulvicastris Ph. lobatus St. pomarinus St. longicaudus Larus hyperboreus Calcarius Passeerculus s. Plectrophenax</p>
18 June	<p>Gavia arctica Gavia stellata Clangula hyemalis Anas acuta Pluvialis dominica Arenaria interpres</p>	<p>C. melanotos C. alpinus C. mauri C. bairdii C. fuscicollis C. pusilla</p>	<p>Ph. fulvicastris Ph. lobatus St. pomarinus Larus hyperboreus Calcarius Plectrophenax Limnodromus scolopaceus</p>
19 June	<p>Gavia arctica Gavia stellata Clangula hyemalis Anas albifrons Polysticta stelleri Anas acuta</p>	<p>Pluvialis dominica Charadrius semipalmatus HETEROSCELES BREVIPEDES 1 Arenaria interpres C. melanotos C. mauri C. bairdii C. fuscicollis</p>	<p>C. pusilla C. ALBA Ph. fulvicastris Limnodromus s. St. pomarinus Larus hyperboreus Calcarius Plectrophenax</p>

Daily list

NARL, Barrow, Alaska

20 June

Gavia arctica display
Gavia stellata display
Anser albifrons 2
Clangula hyemalis
Somateria spectabilis
Somateria fischerii - 1 ♂
Anas acuta
Anas platyrhynchos - 2 ♂

Pluvialis dominica
Arremonia interpres
C. melanotos
C. mauri
C. bairdii
C. pusilla
* C. CANUTUS
* M. himantopus

Limnodromus s.
Ph. lobatus
Ph. fulicarius
~~Ph. 60~~
Stercorarius pomarinus
St. parasiticus
Larus hyperboreus
Larus sp (argutus?)

Nyctea scandiaca
Calcarius lapponicus
Plectrophenax

21 June

North Slope,
Prudhoe Bay, Alaska
Gavia arctica 20+
Anser albifrons - 20+
Branta canadensis - 20+
Branta nigricans - 20+
Anas acuta 50+
~~Sor~~ Clangula hyemalis - 30+
Somateria spectabilis - 30+
S. fischerii - 5

Pluvialis dominica 1
C. melanotos 50+
~~C. alpinus~~
C. mauri 1
C. pusilla - 50+
C. bairdii 5
Tryngites subruficollis 1
Ph. lobatus - 5
Ph. fulicarius 30

Sterna paradisaea - 1
Larus hyperboreus - 20+
~~Xema sabini~~ - 2
Stercorarius pomarinus - 5
St. parasiticus - 10+
St. longicaudus - 2
Nyctea scandiaca 1
Corvus corax - 2
Calcarius lap. 50+
Plectrophenax nivalis 10+

22 June

Gavia arctica 20+
Gavia stellata 1 displaying
Branta bernicla n. 20+
Anser albifrons 50+
Anas acuta 50+
Anas clypeata - 4
Somateria spectabilis Lagopus myio-
Pluvialis dominica 4
Pluvialis squatarola - 2 1 displaying

Arremonia interpres 1
C. melanotos 50+
~~C. alpinus~~ - 20+
C. pusilla 50+
C. bairdii - 2
C. himantopus 2
Tryngites subruficollis 1
Ph. lobatus - 10+
Ph. fulicarius - 50+

Sterna paradisaea
Larus hyperboreus
St. pomarinus
St. parasiticus
St. longicaudus - displaying
Corvus corax
Calcarius ~~lap~~
Plectrophenax nivalis

23 June

Gavia arctica 10+
Gavia stellata 1
Branta bernicla 20+
Branta canadensis 10
Anser albifrons 30+
Anas acuta 50+
Anas platyrhynchos 3
Anas clypeata 5
Mergus serrator - 1 ♀
Somateria spectabilis 20+
Somateria fischerii 4
Clangula hyemalis - 50+

Pluvialis dominica 4
Pluvialis squatarola 2
C. melanotos 30+
C. pusilla 30+
C. bairdii 5
C. himantopus 1
C. alpinus 20+
Tryngites subruficollis 6
Ph. lobatus 30+
Ph. fulicarius 30+

Sterna paradisaea
Larus hyperboreus
St. Xema sabini
St. pomarinus
St. parasiticus
St. longicaudus Acyrtus sp
~~Calcarius~~ Calcarius lap
Plectrophenax niv

24 June

Gavia arctica
Branta bernicla
Branta canadensis
Anser albifrons
Anas acuta
Anas platyrhynchos
Anas clypeata
Somateria spectabilis
Somateria fischerii
Clangula hyemalis

Pluvialis dominica
Pluvialis squatarola
C. melanotos
C. pusilla
~~C. bairdii~~ C. bairdii
C. himantopus
C. alpinus
Tryngites subruficollis - 2
~~Arremonia~~ Arremonia interpres - 1
Ph. lobatus
Ph. fulicarius
Limnodromus scolopaceus

Sterna paradisaea
Larus hyperboreus
Xema sabini
St. parasiticus
St. pomarinus
St. longicaudus - nest 1E
Calcarius lap
Plectrophenax n.

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1977

7

Daily List

Prudhoe Bay, N. Slope, Alaska

25 June

Gavia arctica
Gavia stellata
Anser albifrons
Branta bernicla
Branta canadensis
Anas acuta
Anas clypeata
Somateria spectabilis
Somateria fischeri
Clangula hyemalis

Pluvialis dominica
P. squatarola
Arremonia interpres
C. melanotos
C. bairdii
C. pusilla
C. himantopus
Tryngites subruficollis - 14
Limnodromus scolopaceus - 2
Ph. fulicarius
Ph. lobatus

Larus hyperboreus - 50
Xema sabini - 10
Sterna paradisaea - 5
St. parasiticus - territorial
St. longicaudus - 2 pre nesting
St. pomarinus - small flock - 5
Nyctea scandiaca 1
Corvus corax - 1
Calcarius lapponicus
Plectrophenax nivalis

26 June

Gavia arctica
Anser albifrons
Branta bernicla
Branta canadensis
Anas acuta
Somateria spectabilis
~~Somateria~~ *Clangula hyemalis*
Pluvialis dominica
P. squatarola

C. alpina
C. melanotos
C. bairdii
C. pusilla
C. himantopus
Tryngites subruficollis
Limnodromus scolopaceus
Ph. fulicarius
Ph. lobatus

Larus hyperboreus
Xema sabini
Sterna paradisaea
St. parasiticus
St. pomarinus
St. longicaudus
Corvus corax
Calcarius lapponicus
Acanthis sp.
Plectrophenax nivalis

Barrow, Alaska

30 June

Gavia arctica stellata
Branta bernicla *Grus canadensis*
Anas acuta
Somateria spectabilis - 1 ♂
Polysticte stelleri
Clangula hyemalis
Pluvialis dominica
Arremonia interpres

C. melanotos
C. bairdii
C. pusilla
C. alpina
Tryngites subruficollis
Limnodromus s.
Ph. fulicarius
Ph. lobatus

Larus hyperboreus
Xema sabini 2
Sterna paradisaea - 1
Stercorarius parasiticus
St. longicaudus
~~Arremonia~~
Nyctea scandiaca - 1 ♀
Calcarius lapponicus
Plectrophenax nivalis

1 July

Gavia arctica
Gavia stellata
Anser albifrons
Somateria spectabilis 1 ♂ flock of 40
Clangula hyemalis headed W
Anas acuta
Pluvialis dominica
Arremonia interpres

C. melanotos
C. bairdii - in liberal + moderate
C. pusilla
C. mauri
Limnodromus s.
Ph. fulicarius
Larus hyperboreus
Stercorarius parasiticus
St. longicaudus

Calcarius lapponicus
Plectrophenax nivalis

2 July

Gavia arctica
Gavia stellata
Somateria spectabilis 1 flock 20 ♂♂
Polysticte stelleri - 2 flocks 5-10 ♀♀
Clangula hyemalis
Anas acuta
Aythya affinis - pair!
Anas clypeata - 5
see journal

Pluvialis dominica
Charadrius semipalmatus - nest
Arremonia interpres - chicks
C. melanotos
C. bairdii
C. fuscicollis
C. mauri
C. pusilla
C. alpina

Limnodromus scolopaceus flock of 8 isolated individuals
Ph. fulicarius
Ph. lobatus
Larus hyperboreus
Stercorarius parasiticus
Strang. Parusculus s. - nest
Calcarius lapponicus

Daily list

Barrow, Alaska

3 July

Gavia archia
Gavia stellata
Anas acuta
Aythya affinis - same pair
Clangula hyemalis as 7.2
Somateria spectabilis flock of 8
Somateria mollissima
Pluvialis dominica
Arremonia interpres

C. melanotos - 20⁺ only
C. alpina
C. bairdii
C. mauri
C. pusilla
Ph. fulicarius
Ph. lobatus - 1
Larus hyperboreus - 1000⁺
Larus argentatus - 2
Larus schistisagus - 1

~~no~~ Stercorarius parasiticus
Nyctea scandiaca - 1 ♂
Passerculus s.
Calcarius lapponicus
Plectrophenax nivalis

4 July

Gavia adamsii
Gavia archica
Anas acuta
Clangula hyemalis
Somateria spectabilis
Charadrius semipalmatus
Pluvialis dominica
Arremonia interpres

Calidris melanotos
C. bairdii
C. alpina
C. pusilla
Ph. fulicarius
Ph. lobatus
St. parasiticus
St. longicaudus
Larus hyperboreus

Larus schistisagus
Larus argentatus
Sterna paradisaea
Nyctea scandiaca
Calcarius lapponicus
Plectrophenax
Passerculus sandwichensis

5 July

Gavia archica
Gavia stellata
Anas acuta
Clangula hyemalis
Pluvialis dominica
Arremonia interpres
C. melanotos

C. bairdii
C. alpina
C. pusilla C. mauri
Ph. fulicarius
St. parasiticus
St. pomarinus
St. longicaudus

Larus hyperboreus
Larus schistisagus
Sterna paradisaea
Nyctea scandiaca
Passerculus sandwichensis
Arremonia interpres
Passerculus s.

Calcarius lapponicus
Plectrophenax nivalis

6 July

Gavia archica
Gavia stellata
Branta bernicla
Anas acuta
Clangula hyemalis
Pluvialis dominica
Arremonia interpres

C. melanotos
C. bairdii
C. pusilla
C. alpina
C. mauri Phalaropus fulicarius
St. parasiticus
St. pomarinus
St. longicaudus

Larus hyperboreus
Larus schistisagus
Larus glaucescens ??
Rissa tridactyla
Passerculus sandwichensis
Acanthis sp.
Calcarius lapponicus
Plectrophenax niv.
Pyrhonorhynchus !!

7 July

Gavia archica
Gavia stellata
Anas acuta
Clangula hyemalis
Pluvialis dominica
Arremonia interpres

C. melanotos
C. bairdii
C. pusilla C. mauri
C. alpina
Ph. fulicarius
Larus hyperboreus

St. parasiticus
Rissa tridactyla
Passerculus s.
Calcarius lapponicus
Plectrophenax niv.

8 July

Gavia archica
Gavia stellata
Anas acuta
Clangula hyemalis
Pluvialis dominica
Arremonia i.

C. melanotos
C. bairdii
C. fuscicollis
C. mauri
C. pusilla
C. alpina
Ph. fulicarius
Larus hyperboreus
Xema sabini
Rissa tridactyla
St. parasiticus
St. longicaudus

Nyctea scandiaca
Passerculus s.
Calcarius lapponicus
Plectrophenax niv.

Daily List

Barrow, Alaska

9 July

Gavia adamsii	C. melanotos	Larus hyperboreus
Gavia arctica	C. alpina	Rissa tridactyla
Gavia stellata	C. mauri	Nyctea scandiaca
Anas acuta	C. pusilla	Passerculus s.
Clangula hyemalis	C. bairdii	Calcarius lap
Chen coerelesceus	Ph. fulicarius	Plectrophenax nivalis
Pluvialis dominica	St. longicaudus	
Ardea interpres	St. parasiticus	

10 July

blown in by wind.

11 July

Gavia adamsii	Pluvialis dominica	Ph. fulicarius	Passerculus s.
Gavia arctica	Ardea interpres	Ph. lobatus	Calcarius lap
Gavia stellata	C. melanotos	Larus hyperboreus	Plectrophenax nivalis
Anas acuta	C. alpina	Larus argentatus	
Clangula hyemalis	C. mauri	Rissa tridactyla	
Somateria spectabilis	C. pusilla	St. longicaudus	
* Falco peregrinus	C. bairdii	St. parasiticus	
	Limnodromus scelopaceus	Nyctea scandiaca	
	flock of 10	Sterna paradisaea	

12 July

Gavia arctica	C. melanotos	Larus hyperboreus	
Gavia stellata	C. alpina	L. argentatus	Calcarius lap
Anas acuta	C. mauri	Rissa tridactyla	Plectrophenax niv
Clangula hyemalis	C. pusilla	St. longicaudus	
Somateria spectabilis	C. bairdii	St. parasiticus	
Pluvialis dominica	Ph. fulicarius	Nyctea scandiaca	
Ardea interpres	Ph. lobatus	Passerculus s.	

13 July

Gavia arctica	C. melanotos	Larus hyperboreus	Calcarius lap
Gavia stellata	C. alpina	Rissa tridactyla	Plectrophenax niv
Anas acuta	C. bairdii	St. parasiticus	
Clangula hyemalis	C. mauri	St. longicaudus	
Somateria spectabilis	C. pusilla	St. parasiticus	
Pluvialis dominica	Ph. fulicarius	Nyctea scandiaca	
Ardea interpres	Ph. lobatus	Passerculus s.	

14 July

Gavia arctica	Ardea i	Ph. lobatus	Nyctea scandiaca
Gavia stellata	C. melanotos	Larus hyperboreus	Passerculus s.
Anas acuta	C. bairdii	Rissa tridactyla	Calcarius
Clangula hyemalis	C. mauri	Larus argentatus	Plectrophenax
Somateria spectabilis	C. pusilla	St. parasiticus	
Pluvialis dominica	Ph. fulicarius	St. longicaudus	

15 July

Gavia arctica	C. melanotos	St. parasiticus
Gavia stellata	C. bairdii	St. longicaudus
Anas acuta - 1 ♀ only	C. mauri	Nyctea scandiaca
Clangula hyemalis	C. pusilla	Calcarius
Somateria spectabilis	Ph. fulicarius	Plectrophenax
Pluvialis dominica	Larus hyperboreus	
Ardea interpres	Rissa tridactyla	
	Limnodromus scelopaceus	

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1977

10

Daily List

Barrow, AK

16 July

Gavia arctica	C. bairdii - juv	Nyctea scandiaca
Gavia stellata	C. alpinus	Calcarius
Anas acuta	C. pusilla - juv	Plectrophenax
Clangula hyemalis	Ph. fulicarius	
Pluvialis dominica	Larus hyperboreus	
Arenaria interpres	Rissa tridactyla	
C. melanotos	St. parasiticus	
	St. longicaudus	

17 July

Gavia arctica	C. bairdii	Larus hyperboreus
Gavia stellata	C. alpinus	Rissa tridactyla
Anas acuta	C. pusilla	Nyctea scandiaca
Clangula hyemalis	Ph. fulicarius	Acanthis sp.
Pluvialis dominica	Ph. lobatus	Calcarius lap
Arenaria interpres	St. longicaudus	Plectrophenax nivalis
C. melanotos - SCADS!	St. parasiticus	

Prudhoe Bay, N. Slope, Alaska - out to West Dock

18 July

Gavia stellata - 10	Pluvialis dominica	St. parasiticus
Gavia arctica - 10	Arenaria interpres	Larus hyperboreus
Anser albifrons - 3	C. melanotos	Sterna paradisaea
Branta canadensis - 20	C. alpinus	Nyctea scandiaca
Clangula hyemalis - 100's	C. pusilla - 100 by west dock, 2 j	Calcarius lap
Anas acuta - 1	Ph. fulicarius	Plectrophenax niv.
Melanitta sp.	Ph. lobatus	
Somateria spectabilis	St. longicaudus	

19 July

Gavia stellata	Pluvialis dominica	Larus hyperboreus
Gavia arctica	P. squatarola	Xema sabini
Anser albifrons	Arenaria interpres	Sterna paradisaea
Branta canadensis	C. melanotos	Nyctea scandiaca
Branta bernicla	C. alpinus	Corvus corax
Olor columbianus	C. pusilla	Calcarius lapponicus
Clangula hyemalis	C. himantopus	Plectrophenax nivalis
Aythya sp	Ph. lobatus	
Melitta sp	Ph. fulicarius	
Somateria spectabilis	St. longicaudus	
S. mollissima	St. parasiticus	

20 July

Gavia stellata	Pluvialis dominica	Ph. fulicarius
Gavia arctica	P. squatarola	Larus hyperboreus
Anser albifrons	Arenaria interpres	Sterna paradisaea
Branta canadensis	C. melanotos	Xema sabini
Branta bernicla	C. alpinus	Corvus corax
Olor columbianus	C. pusilla	Calcarius lap
Clangula hyemalis	C. himantopus	Plectrophenax nivalis
Somateria spectabilis	Ph. lobatus	

21 July

Gavia stellata	Pluvialis dominica - chicks	Larus hyperboreus
Gavia arctica	P. squatarola - broody a -	Sterna arctica
Anser albifrons	Ph. fulicarius - flocking adults	Sterna parasitica
Branta bernicla	C. melanotos	St. longicaudus
Clangula hyemalis	C. alpinus - a, j	Nyctea scandiaca
Anas acuta	C. pusilla - a, j	Corvus corax
Somateria spectabilis - 22	C. bairdii - w/ chicks	Calcarius lap
Somateria fischeri - 22	Ph. lobatus	Plectrophenax nivalis
Melanitta	Ph. fulicarius	

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1977

11

Daily List

Proshoc Bay, Alaska

22 July

a.m.

Gavia stellata

Gavia arctica

Anas acuta

Somateria spectabilis

Pluvialis dominica

C. alpina

C. melanotos

C. pusilla

C. himantopus 2 JUVENILES

Limnodromus s. - 2 broody a's

Ph. fulicarius, ♂♂, juveniles

Ph. lobatus

Larus hyperboreus

St. parasiticus

St. longicaudus

Corvus corax

Calcarius lap

Plectrophenax nivalis

24 July

Gavia arctica

Gavia stellata

Olor columbianus

Anas acuta

Somateria spectabilis

one flock

Pluvialis dominica - flocks headed E

C. melanotos - ♀

C. pusilla - juveniles flocking

C. himantopus - noobing adult, 5 in flock

C. alpina - a, j in flock

Ph. fulicarius - a, j

Ph. lobatus - ♂ flocks on lake up to 35 birds

Larus hyperboreus

S. parasiticus

Sterna paradisaea

Corvus corax

Calcarius lap

Plectrophenax nivalis

25 July

Gavia arctica - a w/ 2 young < 3 days old

G. stellata

Anas acuta

Branta nigricans

Branta canadensis

Pluvialis dominica - flocks going E

C. melanotos - broody ♀♀

a few small ♀ flocks

C. pusilla - flocks of j's coalescing

j's obvious on tundra

C. himantopus

C. alpina

Ph. fulicarius

Ph. lobatus - flocks of ♂♂

Larus hyperboreus

Sterna parasiticus

Sterna paradisaea

Corvus corax

Calcarius lap

Plectrophenax nivalis

26 July

Gavia arctica

G. stellata

Anas acuta

Clangula hyemalis

Branta canadensis

B. bernicla

Olor columbianus

Pluvialis dominica

C. melanotos

C. pusilla

C. alpina

C. himantopus

Ph. fulicarius

Ph. lobatus

Larus hyperboreus

Corvus corax

Calcarius lap

Plectrophenax nivalis

27 July

Gavia arctica

G. stellata

Olor columbianus

Branta canadensis

Anas acuta

Somateria spectabilis

Pluvialis dominica

P. squatarola

C. melanotos - ♀♀

C. pusilla - juv.

C. alpina - a, j

C. himantopus a, j

Ph. fulicarius ♂, j

Ph. lobatus - ♂

Larus hyperboreus

Limnodromus scolopaceus adults

Sterna paradisaea

Stercorarius longicaudus

St. parasiticus

Corvus corax

Plectrophenax nivalis

Calcarius lapponicus

28 July

Gavia arctica

G. stellata

Olor columbianus

Branta bernicla

Anas platyrhynchos

Anas acuta

Somateria spectabilis

Clangula hyemalis

Somateria mollissima - 2 ♀♀ / 7 chicks

Melanitta perspicillata

Pluvialis dominica

P. squatarola

C. melanotos - ♀, j

C. pusilla - j - 1000's

C. alpina C. himantopus - adult w/ chicks

C. himantopus Limnodromus scolopaceus

Ph. fulicarius Numenius phaeopus

Ardea interpres

by great dock

Ph. fulicarius

Ph. lobatus

Larus hyperboreus

Larus sp. - glaucosus ??

Xema sabini

Stercorarius parasiticus

Nyctea scandiaca

Corvus corax Motacilla flava * *

Plectrophenax nivalis

Calcarius lapponicus

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Field List

29 July

Prudhoe Bay, Alaska

Gavia archica
Gavia stellata - chick + adults
Clangula hyemalis
Somateria spectabilis
Anas acuta
Pluvialis dominica - everywhere
P. squatarola - many in lowlands + coastal
C. melanotos

C. alpina - flock of 15
C. bairdii - juveniles
C. pusilla - j's - fewer today
C. himantopus
* *Tryngites subrostratus* *
Ph. lobatus - 8♂
Ph. fulicarius - j's (few)
Stercorarius parasiticus

Larus hyperboreus
L. glaucescens - photo'd
Xema sabini
Sterna paradisaea
Corvus corax
Motacilla flava
Calcarius lapponicus
Plectrophenax nivalis

30 July

Gavia archica
Gavia stellata
Anas acuta
Pluvialis dominica
P. squatarola
C. melanotos

C. alpina
C. bairdii
C. pusilla
C. himantopus
Ph. lobatus
Ph. fulicarius

Stercorarius parasiticus
Larus hyperboreus
L. glaucescens
Corvus corax
Calcarius lapponicus
Plectrophenax nivalis

31 July

Gavia archica
Branta canadensis
Branta bernicla nigricans
Anas acuta
Pluvialis dominica
P. squatarola

C. alpina
C. bairdii
C. pusilla
C. melanotos
C. himantopus
Ph. lobatus
Ph. fulicarius - j

Stercorarius parasiticus
Larus hyperboreus
~~*Chordeiles*~~ *Xema sabini*
Corvus corax
Calcarius lapponicus
Plectrophenax nivalis

Meade River Atkasook, N. Slope Borough, Alaska

2 Aug

Gavia archica
Gavia stellata - heard
Anas acuta
Lagopus lagopus
Pluvialis dominica - 10
Pluvialis squatarola - 10
Ardea interpres - heard

C. melanotos - 30
C. alpina - 5
* *Gallinago gallinago* * - 1
Ph. fulicarius
Limnodromus scolopaceus
Stercorarius parasiticus
St. longicaudus
Larus hyperboreus

Sterna paradisaea
Motacilla flava
Acanthis sp.
Calcarius lapponicus
~~*Plectrophenax*~~

6 Aug

Prudhoe Bay

Gavia archica
Gavia stellata
Branta bernicla
Anas acuta
Anas platyrhynchos
Pluvialis dominica
P. squatarola
a + j
2 broody ♀

Ardea interpres - j
C. melanotos - ♀ + j
C. alpina - a + j
C. bairdii - juv
C. himantopus - juv
* *Tryngites subrostratus* - ♀♀, juv's
* *Limosa lapponica* - juv.
* *Ph. lobatus*
Limnodromus scolopaceus

St. parasiticus
Sterna paradisaea
Larus hyperboreus
Acanthis sp.
Calcarius lapponicus
Plectrophenax nivalis

Haul road: Prudhoe → Bolik pm.

Gavia archica - on nest
Anser albifrons - w/chicks
Olor columbianus - w/chicks
Anas acuta
Anas platyrhynchos
Anas carolinensis - w/chicks
Plover
Falco peregrinus - 1 imm.
Lagopus lagopus

Pluvialis dominica
Calidris melanotos
* *C. minutilla* *
Ph. lobatus
Larus hyperboreus
Larus canus
Sterna paradisaea
Stercorarius parasiticus
St. longicaudus

Asio flammeus - 2
Corvus corax
Acanthis sp.
Calcarius motacilla flava
Acanthis sp.
Calcarius lapponicus
~~*Plectrophenax*~~

JP Myers
1977

Daily List

Haul road: Toolik → Dietrich River (20 km S of Chandalar camp)

7 August

<i>Aythya marila</i>	<i>Sterna paradisaea</i>	<i>Phylloscopus borealis</i>	<i>Passerculus sandwichensis</i>
<i>Anas crecca</i> Falco sparverius	<i>Perisoreus canadensis</i>	<i>Regulus calendula</i>	<i>Junco hyemalis</i>
<i>Pluvialis dominica</i>	<i>Corvus corax</i>	<i>Motacilla flava</i>	<i>Spizella arborea</i>
<i>Calidris minutilla</i>	<i>Parus hudsonicus</i>	<i>Anthus spindella</i>	<i>Zonotrichia leucophrys</i>
<i>Heterosciurus circareus</i>	<i>Turdus migratorius</i>	<i>Larus excubitor</i>	<i>Passercilla iliaca</i>
<i>Stercorarius</i> para <i>longicaudus</i>	Thalassidroma <i>Thalassidroma</i>	<i>Verreauxia celata</i>	<i>Calcarius lapponicus</i>
<i>Larus hyperboreus</i>	<i>Icterus naevius</i>	<i>Dendroica coronata</i>	
<i>Larus canus</i>	<i>Catharus minimus</i>	<i>Wilsonia pusilla</i>	
	<i>Oenanthe oenanthe</i>	<i>Acanthis flammea</i>	

Haul Road: Atigun Canyon → Franklin Bluffs

8 August

<i>Gavia stellata</i>	<i>Pluvialis dominica</i>	<i>Corvus corax</i>
<i>Aythya marila</i>	<i>Calidris melanotos</i>	<i>Oenanthe oenanthe</i>
<i>Anas crecca</i>	<i>C. minutilla</i>	<i>Motacilla flava</i>
<i>Anas platyrhynchos</i>	<i>C. pusilla</i>	<i>Anthus spindella</i>
<i>Anas acuta</i>	<i>Phalaropus lobatus</i>	<i>Larus excubitor</i>
<i>Clangula hyemalis</i>	<i>Stercorarius parasiticus</i>	Acanthis <i>Acanthis flammea</i>
<i>Melanitta deglandi</i>	<i>St. longicaudus</i>	<i>Passerculus sandwichensis</i>
<i>Buteo lagopus</i>	<i>Larus hyperboreus</i>	<i>Spizella arborea</i>
<i>Lagopus lagopus</i>	<i>Larus canus</i>	<i>Zonotrichia leucophrys</i>
<i>Charadrius semipalmatus</i>	<i>Sterna paradisaea</i>	<i>Passercilla iliaca</i>
		<i>Calcarius lapponicus</i>

Haul Road: Franklin Bluffs → Deadhorse

9 August

<i>Gavia stellata</i>	<i>Calidris melanotos</i>	<i>Larus hyperboreus</i>
<i>Gavia arctica</i>	<i>C. mauri</i>	<i>Sterna paradisaea</i>
<i>Anas platyrhynchos</i>	<i>C. pusilla</i>	<i>Corvus corax</i>
<i>Anas acuta</i>	<i>C. himantopus</i>	<i>Motacilla flava</i>
<i>Charadrius semipalmatus</i>	<i>C. alpina</i>	<i>Passerculus sandwichensis</i>
<i>Pluvialis dominica</i>	<i>Ph. lobatus</i>	<i>Calcarius lapponicus</i>
	<i>St. parasiticus</i>	<i>Plectrophenax nivalis</i>
	<i>St. longicaudus</i>	

Meade River at Atkasook, N. Slope Borough, Alaska

12 August

<i>Gavia stellata</i>	<i>Pluvialis dominica</i> ←	<i>Stercorarius parasiticus</i>	<i>Calcarius lapponicus</i>
<i>Gavia adamsii</i>	<i>Pluvialis squatarola</i>	<i>Sterna paradisaea</i> - juv + adult	<i>Plectrophenax nivalis</i>
<i>Gavia arctica</i>	<i>C. melanotos</i> j	<i>Larus hyperboreus</i>	
<i>Anas acuta</i>	<i>C. alpina</i>	<i>Motacilla flava</i> - 2	
* <i>Anas platyrhynchos</i> *	<i>Limnodromus scolopaceus</i> j	<i>Passerculus sandwichensis</i>	
<i>Lagopus lagopus</i>	<i>Ph. lobatus</i>	<i>Zonotrichia leucophrys</i>	
	<i>Ph. fulicarius</i>	<i>Acanthis</i> sp	

13 August

<i>Gavia stellata</i>	<i>C. melanotos</i> j	<i>Sterna paradisaea</i>
<i>Gavia arctica</i>	<i>C. alpina</i>	<i>Motacilla flava</i>
<i>Anas acuta</i>	<i>Limnodromus scolopaceus</i> j	<i>Calcarius lapponicus</i>
<i>Lagopus lagopus</i> -	<i>Stercorarius longicaudus</i>	<i>Plectrophenax nivalis</i>
<i>Pluvialis dominica</i>	<i>St. parasiticus</i>	
<i>Pluvialis squatarola</i>	<i>Larus hyperboreus</i>	

14 August

<i>Gavia stellata</i> - carrying fish	<i>C. melanotos</i>	<i>Motacilla flava</i>
<i>Gavia adamsii</i>	<i>C. alpina</i>	<i>Calcarius lapponicus</i>
<i>Gavia arctica</i>	<i>Limnodromus s. j</i>	<i>Plectrophenax nivalis</i>
<i>Anas acuta</i>	<i>Stercorarius long.</i>	
<i>Anas crecca</i> - w/ 2 young	<i>Stercorarius</i> para par.	
<i>Lagopus lagopus</i>	<i>Larus hyperboreus</i>	
<i>Pluvialis dominica</i> - flocking j's.	<i>Sterna paradisaea</i>	
<i>Pluvialis squatarola</i>		

JP Myers
1977

Daily list

Atkasook, Neshle River, N. Slope Borough, Alaska

15 August

Gavia arctica
Gavia adamsii
Gavia stellata
Anser albifrons
Anas acuta - 100+ in evening
migrating E.
Anas crecca
Lagopus lagopus
Lagopus mutus - flight display
in 8

Pluvialis dominica
Pluvialis squatarola
* Numenius phaeopus *
Calidris melanotos
C. alpina
Limnodromus scolopaceus
Sturnarius ~~longicaudus~~
Sturnarius parasiticus
Larus hyperboreus

Sterna paradisaea
Motacilla flava
Acanthis flammea
Calcarius lapponicus
Plectrophenax nivalis

16 Aug

Gavia arctica
Gavia stellata
Gavia adamsii
Anser albifrons
Anas acuta
Lagopus lagopus
Pluvialis dominica

Pluvialis squatarola
Calidris melanotos
C. alpina
Limnodromus scolopaceus
Sturnarius parasiticus
Sturnarius pomarinus
Larus hyperboreus

Sterna paradisaea
Motacilla flava
Acanthis flammea
Calcarius lapponicus
Plectrophenax nivalis

17 August

Gavia arctica
Gavia stellata
Gavia adamsii
Anser albifrons
Anas platyrhynchos
Anas crecca
Anas acuta
Lagopus lagopus

Pluvialis dominica - juveniles
Pluvialis squatarola
C. melanotos
C. alpina
Limnodromus scolopaceus
Sturnarius parasiticus
Sturnarius ~~longicaudus~~
Larus hyperboreus

Sterna paradisaea
Motacilla flava - 2
Acanthis flammea
Calcarius ~~lapponicus~~
Plectrophenax nivalis

18 August

Gavia arctica
Gavia stellata
Gavia adamsii
Anser albifrons
~~Anser~~ Anas acuta
Lagopus lagopus

Pluvialis dominica
Pluvialis squatarola
C. melanotos
C. alpina
Limnodromus scolopaceus
Sturnarius parasiticus

Sturnarius longicaudus
Larus hyperboreus
Sterna paradisaea
Acanthis flammea
Calcarius lapponicus

19 August

Gavia arctica
Gavia stellata
Gavia adamsii
Anser albifrons
Anas acuta
Anas platyrhynchos
Lagopus lagopus
Lagopus mutus

~~Pluvialis dominica~~
Pluvialis dominica 5
Pluvialis squatarola 20
C. melanotos 30
C. alpina 20
Limnodromus scolopaceus 1
~~Pluvialis dominica~~
Sturnarius parasiticus
Sturnarius ~~longicaudus~~ - still kintorid

Sterna paradisaea
Larus hyperboreus - young fledged
Acanthis flammea
Calcarius lapponicus
Plectrophenax nivalis

20 August

Gavia arctica
Gavia adamsii
Gavia stellata
Anas acuta
Lagopus lagopus

Pluvialis dominica
Pluvialis squatarola
C. melanotos
C. alpina
Phalaropus lobatus - 1
Sturnarius parasiticus
St. longicaudus

Larus hyperboreus
Sterna paradisaea
Acanthis flammea
Calcarius lapponicus
Plectrophenax nivalis

223 711
24 713
25 714
26 716
27 717

28 718
29 719

30 720

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1976

Daily list

Atkasook on Meade River, N. Slope Borough, Alaska

21 August

Gavia archica	Pluvialis dominica 1 heard	Larus hyperboreus
Gavia stellata - w/chicks	Pluvialis squatarola - small flock of j's	Sterna paradisaea
Gavia adamsii	Calidris melanotos - very scattered j's	Calcarius lapponicus
Anas acuta	C. mauri - 1j	Plectrophenax nivalis
Lagopus lagopus	C. alpinus - scattered a's + j's	
Lagopus mutus	Stercorarius parus parasiticus	
	St longicaudus	

22 August

Gavia archica	Pluvialis dominica	St. longicaudus
Gavia stellata	Pluvialis squatarola	Larus hyperboreus
Gavia adamsii	C. melanotos	Sterna paradisaea
Anas acuta	C. alpinus	Calcarius lap
Lagopus lagopus	Limnodromus s.	Acanthus flammeus
	St. parasiticus	

23 August

Gavia archica	Pluvialis dominica	Larus hyperboreus
Gavia stellata	P. squatarola	Sterna paradisaea
Gavia adamsii	C. melanotos	Calcarius lapponicus
Anser albifrons	C. alpinus	Acanthus flammeus
Lagopus lagopus	Limnodromus s.	
	Stercorarius parasiticus	

24 August

Gavia archica	Pluvialis dominica	Stercorarius parasiticus
Gavia stellata	P. squatarola	Larus hyperboreus
Gavia adamsii	C. melanotos isolated juveniles	Calcarius lapponicus
Lagopus lagopus	C. alpinus - flock of 35	Acanthus flammeus
Falco rusticolus	Limnodromus s.	
Anser albifrons		

25 August

Gavia archica	Pluvialis dominica - 3	Stercorarius parasiticus
Gavia stellata	C. melanotos - 2	Larus hyperboreus
Gavia adamsii	C. alpinus - 3	Calcarius lapponicus
Lagopus lagopus	Limnodromus s.	Acanthus flammeus
Falco rusticolus *		
Anas acuta		
Anser albifrons		

26 August

Gavia archica	Pluvialis dominica	Sterna paradisaea
Gavia stellata	NO P. squatarola!	Larus hyperboreus
Gavia adamsii	C. melanotos < 5	Calcarius lapponicus
Lagopus lagopus	C. alpinus < 10	Acanthus flammeus
Anas acuta	Stercorarius parasiticus	Plectrophenax nivalis - 2
Anas platyrhynchos		

27 August

Gavia archica	Pluvialis dominica	Larus hyperboreus
Gavia stellata	Pluvialis squatarola	Calcarius
Gavia adamsii	C. melanotos < 5	Sterna paradisaea
Anas acuta	C. alpinus < 5	Passerculus sandwichensis
Lagopus lagopus	Stercorarius parasiticus	Acanthus flammeus
		Calcarius lapponicus

28 Aug

Gavia archica	Pluvialis dominica	Larus hyperboreus
Gavia stellata	Pluvialis squatarola - adult w/ unfledged chicks	Acanthus flammeus
Anser albifrons	C. melanotos	Calcarius lapponicus
Lagopus lagopus	C. alpinus	Plectrophenax nivalis
Lagopus mutus	St. parasiticus	

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Daily list

Atkasook on Meade River, N. Slope Borough, Alaska

29 August

<i>Gavia arctica</i> <i>Gavia stellata</i> <i>Anser albifrons</i> <i>Anas acuta</i> <i>Lagopus lagopus</i> <i>Pluvialis dominica</i> <i>Pluvialis squatarola</i>	^{<i>Gavia adamsii</i>} <i>Somateria fischerii</i> - 3j <i>Anas crecca</i> <i>-adult w/ unfledged chicks</i>	<i>C. melanotos</i> <i>C. alpina</i> <i>Limodromus scolopaceus</i> <i>Stercorarius parasiticus</i> <i>Larus hyperboreus</i> <i>Nyctea scandiaca</i> <i>Acanthis flammea</i> <i>Passerculus s.</i> <i>Zonotrichia leucophrys</i>	<i>Calcarius lapponicus</i> <i>Plectrophenax nivalis</i>
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30 Aug

<i>Gavia adamsii</i> <i>Gavia arctica</i> <i>Anas acuta</i> <i>Anas crecca</i> <i>Clangula hyemalis</i> <i>Somateria fischerii</i> <i>Lagopus lagopus</i>		<i>Pluvialis dominica</i> - 10 <i>Pluvialis squatarola</i> - 5 <i>C. melanotos</i> - 2 <i>C. alpina</i> - 30 <i>Limodromus scolopaceus</i> - 30 <i>Phalaropus lobatus</i> - 20 <i>Stercorarius parasiticus</i>	<i>Larus hyperboreus</i> <i>Sterna paradisaea</i> - 1 <i>Acanthis flammea</i> <i>Passerculus s.</i> <i>Calcarius lapponicus</i> <i>Plectrophenax nivalis</i>
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31 August

left Meade

1 Sept

Barrow, Alaska

<i>Gavia arctica</i> <i>Anas acuta</i> <i>Anser albifrons</i> <i>Polysticta stelleri</i> <i>Clangula hyemalis</i> <i>Aythya fuligula</i>	<i>Pluvialis dominica</i> <i>P. squatarola</i> <i>C. melanotos</i> <i>C. alpina</i> <i>Limodromus s.</i> <i>Arenaria interpres</i> <i>Ph. fulicantus</i>	<i>Larus hyperboreus</i> <i>Larus argentatus</i> <i>* Larus schistisagus</i> <i>Calcarius lapponicus</i> <i>Plectrophenax nivalis</i>
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2 Sept. -

went outside only briefly

<i>Clangula hyemalis</i> <i>Pluvialis dominica</i> <i>C. melanotos</i> <i>C. alpina</i> <i>*** Philomachus pugnax juvenile</i>	<i>Phalaropus pugnax</i> <i>Larus hyperboreus</i> <i>Larus argentatus</i> <i>Calcarius lapponicus</i> <i>Plectrophenax nivalis</i>
--	--

3 Sept

<i>Gavia stellata</i> <i>Branta bernicla</i> <i>Clangula hyemalis</i> <i>*** Aythya fuligula</i> <i>Anas acuta</i>	<i>Pluvialis dominica</i> <i>C. melanotos</i> <i>C. alpina</i> <i>*** Philomachus pugnax</i> <i>limodromus scolopaceus</i>	<i>Larus hyperboreus</i> <i>Larus argentatus</i> <i>* Zonotrichia leucophrys</i> <i>Calcarius lapponicus</i> <i>Plectrophenax nivalis</i>
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JPM:pus
1977

BARROW

10 Day transect summary

Barrow, Alaska

26 May - 4 June

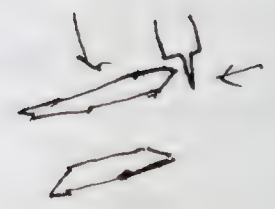
<i>Pluvialis dominica</i>	♂	1
	♀	1
<i>C. melanotos</i>	♂	7
	♀	0
<i>C. alpina</i>		16
<i>C. pusilla</i>		0
<i>C. bairdii</i>		3
<i>Tryngites solarifollis</i>		1
<i>Calcaris lapponicus</i>	♂	87
	♀	38
<i>Plectrophenax nivalis</i>	♂	11
	♀	8

5 June - 14 June

<i>Clangula hyemalis</i>		2
<i>Pluvialis dominica</i>	♂	11
	♀	2
<i>C. melanotos</i>	♂	33
	♀	19
	?	3
<i>C. fuscicollis</i>		2
<i>C. bairdii</i>		18
<i>C. alpina</i>		43
<i>C. pusilla</i>		3
<i>Ph. fulicarius</i>	♂	8
	♀	13
<i>Acanthis</i>		2
<i>Calcaris l.</i>	♂	104
	♀	40
<i>Plectrophenax n.</i>	♂	4
	♀	4

26 1
30 2
5 3
10 4
15 5
20 6
25 7
30 8
5 9
10 10

.....



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10 day summary - Barrow

15-24 June

<i>Anas acuta</i>	♂ ♀	6 3
<i>Polysticta stellaris</i>	♂ ♀	1 1
<i>Pluvialis dominica</i>	♂ ♀	21 14
<i>Arenaria interpres</i>		5
<i>C. alpina</i>		74
<i>C. bairdii</i>		35
<i>C. mauri</i>		10
<i>C. pusilla</i>		12
<i>C. himantopus</i>		1
<i>C. melanotos</i>	♂ ♀	57 6
<i>C. fuscicollis</i>		3
<i>Limnodromus s.</i>		3
<i>Ph. fulicarius</i>	♂ ♀	46 54
<i>Nyctea scandiaca</i>		1
<i>Calcarus lapponicus</i>	♂ ♀	153 36
<i>Plectrophenax nivalis</i>	♂ ♀	10 5

25 June - 4 July

<i>P. dominica</i>	♂ ♀	19 21
<i>Arenaria interpres</i>		7
<i>C. alpina</i>		78
<i>C. bairdii</i>		10
<i>C. pusilla</i>		16
<i>C. mauri</i>		10
<i>C. melanotos</i>	♂ ♀	156 58
<i>Limnodromus s.</i>		2
<i>Ph. fulicarius</i>	♂ ♀	37 86
<i>Nyctea scandiaca</i>		1
<i>Calcarus lap</i>	♂ ♀	146 70

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1977

Barrow
10 Day Summary

Barrow, Alaska TRANS 1-10 4 samples (40040)

5-14 July

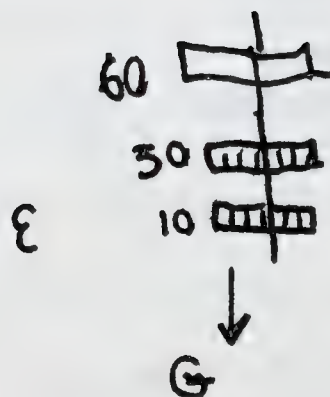
<i>Clangula hyemalis</i>	♀	1	
<i>Somateria spectabilis</i>	♀	1	
<i>Pluvialis dominica</i>	♂	19	
	♀	27	UNKNOWN 2
<i>C. melanotos</i>	♂	210	
	♀	93	UNK
<i>C. alpina</i>		158	
<i>C. pusilla</i>		45	
<i>C. mauri</i>		14	
<i>C. bairdii</i>		12	
<i>Ph. fulicarius</i>	♂	149	
	♀	51	
<i>Limnodromus scolopaceus</i>		3	
<i>Stercorarius longicaudus</i>		3	
<i>St. parasiticus</i>		2	
<i>Calcarius lapponicus</i>	♂	86	
	♀	42	UNK 4
	j	17	
<i>Passerculus s.</i>		1	
<i>Plectrophenax nivalis</i>	♂	15	
	♀	6	

15-24 July

<i>Pluvialis dominica</i>		54	2 samples (20040)
<i>C. melanotos</i>	♂	119	
	♀	45	
	u	2	
<i>C. alpina</i>	a	95	
	j	8	
<i>C. pusilla</i>	a	4	
	j	2	
<i>C. mauri</i>		1	
<i>C. bairdii</i>		2	
<i>Limnodromus scolopaceus</i>		4	
<i>Ph. fulicarius</i>	♂	50	
	♀	2	
<i>Stercorarius longicaudus</i>		5	
<i>Calcarius lapponicus</i>	♂	34	
	♀	9	
	j	45	
<i>Nyctea scandiaca</i>		1	
<i>Plectrophenax nivalis</i>	♂	4	
	♀	4	
	j	5	

VE6
PHYS

Assess
physical



JPMyers
1977

Barrow 10 day Summary

25 July - 3 Aug

Barrow, Alaska	TRANS	1-10	2 samples	(200ha)
<i>Anas acuta</i>	♀	7		
<i>Pluvialis dominica</i>		60		
<i>C. melanotos</i>	♂	1		
	♀	56		
	j	1		
<i>C. alpina</i>	a	89		
	j	41		
<i>C. mauri</i>	j	1		
<i>C. pusilla</i>	a	18		
	j	1		
<i>C. fuscolles</i>		1		
<i>Tringa sub</i>	j	1		
<i>Ph. fulicarius</i>	♂	15		
	♀	0		
	j	13		
<i>Sterna longicauda</i>		6		
<i>St. parasitica</i>		2		
<i>Calcarius lap</i>	♂	6		
	♀	12		
	j	68		
<i>Plectrophenax nivalis</i>	♂	0		
	♀	0		
	j	1		



Myers, J. P.

1977

Alaska

Transect Summaries

SP Myers
1977

Prudhoe Transect Summaries
EACH TRANSECT = 5 Ha

Prudhoe Bay, W. Slope, Alaska - see map 26 June 1977 for transect locations

TRANSECT 1

22-25 June

22 JUNE

24 June

<i>Pluvialis dominica</i>	♂	0		0
	♀	1		0
<i>C. melanotos</i>	♂	3		3
	♀	0		1
<i>C. alpina</i>		4		1
<i>C. pusilla</i>		2		1
<i>Ph. fulicarius</i>	♂	0		0
	♀	0		0
<i>Ph. lobatus</i>	♂			0
	♀	1		
<i>St. Parasiticus</i>		2		0
<i>Calcarius lap.</i>	♂	3		2
	♀	2		0

TRANSECT 2

22 JUNE

24 June

<i>C. melanotos</i>	♂	4		1
	♀	3		0
<i>C. alpina</i>		4	<i>C. himantopus</i>	1
<i>C. pusilla</i>		2		1
<i>Ph. fulicarius</i>	♂	0		1
	♀	5		4
			<i>Calcarius l.</i>	2
				0

TRANSECT 3

22 JUNE

24 June

<i>Pluvialis dominica</i>		0		2
<i>Pluvialis squatarola</i>		0		2
<i>C. melanotos</i>	♂	0		1
	♀	0		1
<i>C. alpina</i>		2		3
<i>C. pusilla</i>		0		1
<i>C. bairdii</i>		2		0
<i>St. longicaudus</i>		1		0
<i>Calcarius</i>	♂	4		2
	♀	1		0

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1977

Prudhoe Transect Summaries

Prudhoe Bay, N. Slope, Alaska

22-25 June

TRANSECT 4

23 JUNE

C. pusilla	1
Tryngites subruf.	1
Calcarivus lap ♂	4
♀	2

24 JUNE

0
0
3
1

Transect 5

24 JUNE

Pluvialis dominica	0
C. alpina	0
Tryngites	0
Calcarivus lap ♂	1
♀	

25 JUNE

1
3
3
4
2

TRANSECT 6

23 JUNE

Anas acuta	1
C. melanotos ♂	1
♀	1
C. pusilla	5
Ph. fulicarius ♂	0
♀	4
Ph. lobatus ♂	1 5
♀	2 3
Calcarivus lap	4

24 JUNE

0
1
0
3
1
3
1
2
6

TRANSECT 7

23 JUNE

Branta canadensis	0
C. melanotos ♂	2
♀	1
C. pusilla	4
C. himantopus	0
Ph. fulicarius ♂	4
♀	6
Ph. lobatus	0

24 JUNE

2
1
0
6
1
3
6
4

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Prudhoe Transect Summaries

Prudhoe Bay, N. Slope, Alaska

22-25 June

Transect 8

25 June			25 JUNE
<i>C. melanotos</i>	♂	5	4
	♀	2	1
<i>C. alpina</i>		3	4
<i>C. pusilla</i>		1	0
<i>Tryngites subruficollis</i>		2	3
<i>Phalaropus fulicarius</i>		3	4
<i>Ph. lobatus</i>		1	0
<i>Calcarius lap</i>	♂	4	6
	♀	1	2

TRANSECT 9

25 JUNE			25 JUNE
<i>P. squatarola</i>		1	0
<i>P. dominica</i>		1	0
<i>C. melanotos</i>	♂	2	2
	♀	1	1
<i>C. alpina</i>		1	1
<i>Tryngites sub</i>		3	1
<i>Limnodromus</i>		2	0
<i>Calcarius lap</i>	♂	4	3
	♀	2	3

Transect 10

24 June			25 JUNE
<i>C. alpina</i>		3	1
<i>C. pusilla</i>		1	1
<i>Tryngites</i>		0	1
<i>Calcarius</i>	♂	3	1
	♀	1	0

TRANSECT 11

24 JUNE			25 JUNE
<i>Agopus mutus</i>		1	2
<i>Pluvialis dominica</i>		1	0
<i>C. bairdii</i>		0	1
<i>C. pusilla</i>		3	4
<i>Tryngites</i>		1	1
<i>Calcarius</i>	♂	4	7
	♀	3	2

JPM
1977

Poodhoe transect GRAWS SUMMARIES

Poodhoe Bay, W. Slope Alaska

22-25 June

55 ha sampled twice

<i>Branta canadensis</i>	2	/ha
<i>Anas acuta</i>	1	
<i>Pluvialis squatarola</i>	3	
<i>Pluvialis dominica</i>	6	
<i>Calidris melanotos</i>	♂ 29 ♀ 14	.26 .13
<i>C. alpina</i>	31	.28
<i>C. bairdii</i>	3	
<i>C. pusilla</i>	39	.35
<i>C. himantopus</i>	2	
<i>Tryngites subruficollis</i>	11	.1
<i>Limnodromus s.</i>	2	
<i>Phalaropus fulicarius</i>	♂ 14 ♀ 35	.13 .32
<i>Ph. lobatus</i>	♂ 23	.21
<i>St. longicaudus</i>	1	
<i>Calcarius lap</i>	95	.86

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1977

Prudhoe Transect Analysis

Prudhoe Bay, N. Slope, Alaska

22-25 June

T8

UTC 3

LTM 7

LTW 7 LTW-POND 1

EM 2

T9

UT-SNOW BANK 1 ← UT-CR-BT

UTC-RIM 5 UTC POND 2

FB 6 FB-POND 4

LTW-RIM 2

T10

UT 12

UTC 5

LTM 3

T11

UT - 1

UT-CR-BT - 17

UTC 1

LTW-POND - 1

LUMPING:

I $\left. \begin{array}{l} \text{UT-CR-BT} \\ \text{PINGO} \\ \text{UTC RIM} \end{array} \right\} = 35$

II UT = 48

III FB = 12

IV UTC = 29

V UT-P, L MARGIN = 13

VI LMT = 25

VII $\left. \begin{array}{l} \text{L/EM} \\ \text{MPP} \\ \text{LTW-P} \end{array} \right\} = 19$

VIII $\left. \begin{array}{l} \text{LTW} \\ \text{LTW-RIM} \end{array} \right\} = 39$

TOTAL = 220 = 55 ha 1 = .25 ha

	#	prop		#	prop		#	prop
UT	50	.22	LTM	25	.11	PINGO	8	.04
UT-CR-BT - 18		.08	LTM - POND/LAKE	3	.01	LAKE	1	.01
UT-POND	2	.01	LTW	37	.17	EM	1	.01
UTC	29	.13	LTW-LAKE/POND	5	.02			
UTC-POND	7	.03	LTW-RIM	2	.01			
UTC-RIM	5	.02	FB	12	.05			
MPP	12	.05	FB-POND	4	.02			

	PECTORAL	DUNLIN	SEMPIPLUM	Red Phalarope	Northern Phalarope	Buffy	Golden	Black-Belly	BAIRD	② LARLAND LOWDOWN
UT		 								
UT-CR-BT										
UTC										
UTC-RIM										
FB										
PINGO										
UT-POND										
UTC-POND										
FB-POND										
LTM										
MPP										
LTM-POND										
LTW										
LTW-RIM										
LTW-POND										
LAKE/EM										
	43	31	39	49	23	11	6	3	3	95

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	BAIRD'S	BLACK BELLY	GOLDEN	BUFFY	LAPLAND LONGSPUR	DUNLIN	SEMPALMATED	PECTORAL	RED PHALAROPE	NORTHERN PHALAROPE
PINGO, SNOW BANK CREEK BANK OLD LAKE RIM Barren tundra	3	2	4	4	15 20	5 8	6 6	7 4	8	4
UPLAND TUNDRA			1	3	21 12	6 9	9 3	9	11	5
FROST-BOIL				2	4 2	2 1	2	2	2	1
UPLAND TUNDRA COMPLEX				2	12 17	4	5	6 4	6	3 1
UPLAND TUNDRA POND/LAKE MARGIN		1	1		6 2	2	2 8	3	3	1
LOWLAND MESIC TUNDRA					10 14	3 7	4 6	5 7	5 1	3
MIXED PONDS AND POLYGONS					9 9	3 1	4 9	4 4	4 27	2 6
LOWLAND WET TUNDRA					17 14	6 5	2 5	8 22	9 21	4 16
	3	3	6	11	95	31	37	41	49	23

TRANSECT RESULTS

22-25 JUNE PRUDHOE
BAY

Σ of all
species

$\Sigma = 51$

#/ha ~~3.9~~

$\Sigma = 28$

in upper left hand are
expected given total #
observed of a given species and
assuming there is no random
use of habitat

$\Sigma = 5$

.91/ha

$\Sigma = 24$

1.7/ha

$\Sigma = 12$

1.8/ha

$\Sigma = 35$

2.9/ha

$\Sigma = 56$

5.7/ha

$\Sigma = 83$

4.2/ha

294

	BUFFY	GOLDEN	BLACK-BELLY	BAIRD'S	DUNLIN	LAPLAND LONGSPUR	PECTORAL	RED PHALAROPE	NORTHERN PHALAROPE
PINGO	1	2	2	2	6	2			
UT - CR-BT	1	1		1		13			
UTC-RIM	2	1			2	5	4		
UT	3	1			9	12			
FB	2				1	2	2		
UT-Pond		1							
FB-POND			1			1			
UTC	2					17	4		1
UTC-POND						1			
LTM					7	14	7	1	
MPP						7	4	14	6
LTW-RIM						1	2		
LTW					5	13	20	21	16
LTW-POND						2		11	
LAKE/EM					1			2	

VEG LUMPING

units

proportion

UT

50

.23

UTC - FB

24

.11

STREAM / RIM

23

.11

1

MPP (UT POND
UTC POND
LTM POND
FB- POND)

LTM

25

.11

LTM - LTM/POND, LAKE, EM

PIN60

.56	.26	.18
I-IV	V-VII	VIII
UPLAND	MIXED	LOWLAND

BAIRDS	2 3	1 0	1 0	3
BLACK BELLY	2 2	1 1	1 0	3
GOLDEN	3 5	2 1	1 0	6
BUFFY	6 11	3 0	2 0	11
LAP	53 51	25 30	17 14	95
DUNLIN	17 18	8 8	6 5	31
SEMI	21 9	10 23	7 5	37
PECT	24 4	11 11	8 22	43
RED PHAL	27 0	13 28	9 21	49
NORTHERN	13 0	6 7	4 16	23

w/o LAP	52	79	69
w/LAP	103	109	83

w/o LAP	52	170	215
w/LAP	103	234	258

} NORMALIZED TO EQUAL AREA

w/o LAP #/ha	.84	2.76	3.48
w/LAP	1.67	3.81	4.2

spiders	45	42	32
ploters	7	2	0
phala	0	35	47
passer	51 52	30	14

.73	1.5	1.6
.11	.07	0
.820	1.2	2.4
.82	1.0	.7

known hard core breeders

Barren tundra - ~~known~~ ~~hard core~~ b
Pingo, snow bank, ~~thick~~ stream

P. squatarola
P. dominica
C. alpinus
C. borealis
Tryngites
Calcarius

tundra stream

P. squar
P. domin
C. borealis
C. pusilla
Tryng
Calcarius

Frost boil

P. squatarola
P. dominica
C. alpinus
Tryngites
C. pusilla
Tryngites
Calcarius

Upland tundra

P. squar
P. domin - not in SE
C. alp
Tryngites
Calcarius

within 200m of
if near lake margin
C. pusilla

~~Stream bank~~

UTC

~~P. squar~~
~~P. domin~~
~~Tryng~~
~~C. pusilla~~

P. squar
P. domin - not in SE
C. alp
Tryng
Pect
C. pusilla
Calcarius

LTM

Ph. lobatus
Ph. fulicarius

~~UTC~~

LTM
C. alp
P. domin

LTM

mixed ponds + polygons
Pect
P. pusilla
Calcarius

Pure LTM

P. domin
Pect
C. pusilla
Calcarius

LTM

P. domin - not in SE
Pect
C. pusilla
Calcarius

~~add~~ mixed ponds + polygons

add

Ph. lobatus

Ph. fulicarius

Clangula

Anas acuta

~~Pect~~ C. alpinus

C. pusilla

L T - W

Ph. lob

Ph. ful

~~Calc~~ melanotos

C. pusilla

lake margin
away from coast

add:

Somateria spect

Gavia archia

Cygnus

Branta canadensis

Branta bernicla

Anser albifrons
horus hyperboreus

on coast (within 5km)

add

Gavia stellata

Transect Summary

~~Barrow~~ Barrow

Barrow, North Slope Borough, Alaska

TRANSECT	26 May	31 May	5 Jun	10	15	20	25	30	4 July	11 J	TOTAL	ind
DATE												
TIME												
ANAS ACUTA												
CLANGULA HYEMALIS												
PLUVIALIS DOMINICA		2	3	11	16	24	17	23	12			
ARENARIA INTERPRES				2		2	2	5				
CALIDRIS MELANOTOS ♂ ♀		7	3 12	25 8	15 1	41 6	57 5	94 53	27 10	60 54		
CALIDRIS FUSCICOLLIS												
CALIDRIS BAIRDII		3	4	14	19	16	3	7				
CALIDRIS ALPINA		16	14	29	34	40	32	46	50			
CALIDRIS PUSILLA			4	1	9	3	7	9	17	7		
CALIDRIS MAURI					5	5	6	4	4	3		
LIMNODROMUS SCOLOPACEUS					3			2	1			
PHALAROPUS FULICARIUS ♂ ♀			2 2	6 11	15 29	30 26	18 78	19 12	39 40			ind
STERCORARIUS PARASITICUS												
STERCORARIUS LONGICAUDUS												
CALCARIUS LAPPONICUS	42	80										
PLECTROPHENAX NIVALIS	6	13										
Tryngites		1										

Myers tran 1977
Summary

Handwritten title at the top of the page.

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1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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Grid 1 Census

22 July 1977

1100-1230

50% overcast, 35°, strong E wind

American Golden Plover 1
Pectoral Sandpiper 4 ♂♂
Dunlin 8 adults & 1 juv.
Semipalmated Sandpiper 1 ad. & 1 juv.
Western Sandpiper 1
Red Phalarope 1 ♂
Northern Phalarope 1 ♂ (brooding)
Lapland Longspur 4 ♂♂, 3 ♀♀, & 9 juv.

Grid 2 Census

22 July 1977

0850-1050

100% overcast, 32°, strong E wind

American Golden Plover 8
Pectoral Sandpiper 1 ♂ & 3 ♀♀
Dunlin 8 adults & 2 juv.
Semipalmated Sandpiper 3 ad. & 1 juv.
Red Phalarope 4 ♂♂
Parasitic Jaeger 1 ♂
Long-tailed Jaeger 4
Snowy Owl 1 ♂
Lapland Longspur 2 ♂♂, 1 ♀, & 1 juv.

Grid 1 Census

28 July 1977

0850-1040

100% overcast w/ some rain
46°F

light W wind, then E

American Golden Plover 4

Pectoral Sandpiper 7 ♀♀

Dunlin 32 ad. ♂ & 2 juv.

Semipalmated Sandpiper 4 juv.

Red Phalarope 3 ad. ♂♂ & 3 juv.

Lapland Longspur 4 ♂♂, 2 ♀♀, & 2 juv.

Snow Bunting 1 juv.

Grid 2 Census

28 July 1977

1050-1230

60% overcast, 47°

light E wind, then W, then N

Pintail 10 ♀♀

American Golden Plover 10

Pectoral Sandpiper 2 ♀♀

Dunlin 18 ad. ♂ & 1 juv.

Semipalmated Sandpiper 3 juv.

Red Phalarope 1 ad. ♂ & 4 juv.

Parasitic Jaeger 3 (dark ad.)

Long-tailed Jaeger 14

Lapland Longspur 2 ♀♀

Grid One Census

2 August 1977

1020-1205
90% overcast
55-62°F
moderate S wind, then W

Pectoral Sandpiper 2 ♀♀ & 21 juv. & 14 unknown

Dunlin 7 ad. & 2 juv.

Semipalmated Sandpiper 1 juv.

Red Phalarope 1 juv.

Lapland Longspur 2 ♂♂ & 5 ♀♀ & 5 juv.

Caribou 1 ♀

Grid Two Census

3 August 1977

0840-1030
100% overcast - fog
some light rain
47-52°F
very light S wind, then W

Pectoral Sandpiper 1 ♀ & 3 juv. & 1 unknown

Dunlin 24 ad. & 3 juv.

Western Sandpiper 1 juv.

Red Phalarope 15 juv.

Parasitic Jaeger 1

Long-tailed Jaeger 1

Lapland Longspur 36 juv.

Grid One Census

7 August 1977

1010 - 1155
100% overcast - fog
45°F
light W wind

Pectoral Sandpiper	10 juv.
Dunlin	29
Western Sandpiper	8 juv.
Red Phalarope	2 juv.
Lapland Longspur	1 ♂, 1 ♀, & 83 juv.

Grid Two Census

8 August 1977

0855 - 1100 (-10 min.)
100% overcast - thick fog
40°F
strong E wind

American Golden Plover	2 juv.
Pectoral Sandpiper	5 juv.
Dunlin	5 ad. & 3 juv.
Western Sandpiper	6 juv.
Buff-breasted Sandpiper	1 juv.
Red Phalarope	1 ad. ♂ & 10 juv.
Northern Phalarope	1 juv.
Glaucous Gull	110 (ad. & im.)
Glaucous-winged Gull	1 im.
Herring Gull	1 im.
Lapland Longspur	19 juv.

Grid One Census

13 August 1977

0850 - 1030
95% overcast - fog
34°, strong E wind

Pintail	2 ♀♀
American Golden Plover	1 ad. & 5 juv.
Pectoral Sandpiper	3 juv.
Dunlin	25 ad. & 2 juv.
Western Sandpiper	4 juv.
Stilt Sandpiper	3 juv.
Red Phalarope	1 juv.
Lapland Longspur	29 juv.

Grid Two Census

13 August 1977

1035 - 1215
95% overcast - fog
34°, strong E wind

American Golden Plover	4 juv.
Pectoral Sandpiper	1 juv.
Baird's Sandpiper	1 juv.
Dunlin	13 ad. & 3 juv.
Semipalmated Sandpiper	1 juv.
Western Sandpiper	3 juv.
Long-billed Dowitcher	1 ad. & 23 juv.
Red Phalarope	21 juv.
Snowy Owl	1 ♂
Lapland Longspur	23 juv.

Grid One Census

18 August 1977

1200 - 1320

100% overcast

48°, strong E wind

Pectoral Sandpiper 4 juv.

Dunlin 19

Long-billed Dowitcher 3 juv.

Red Phalarope 5 juv.

Lapland Longspur 12 juv.

Grid Two Census

18 August 1977

0905 - 1135

90% overcast

48°, strong E wind

American Golden Plover 4 juv.

Pectoral Sandpiper 6 juv.

Dunlin 7 ad. & 1 juv.

Long-billed Dowitcher 173 juveniles

Red Phalarope 28 juv.

Sabine's Gull 1

Lapland Longspur 7 juv.

Grid One Census
22 August 1977

1010 - 1150
48°, 95% overcast
light E wind

Pectoral Sandpiper 4 juv.

Dunlin 5 ad. & 6 juv.

Long-billed Dowitcher 24 juv.

Red Phalarope 2 juv.

Lapland Longspur 2 juv.

Grid Two Census

23 August 1977

0945 - 1200

50°, 100% overcast

light E wind

American Golden Plover 2 juv.

Pectoral Sandpiper 5 juv.

Dunlin 14 ad. & 9 juv.

Long-billed Dowitcher 100 juv.

Red Phalarope 3 juv.

Lapland Longspur 5 juv.

Grid One Census

26 August 1977

1045-1210
40°, 100% overcast
moderate W wind

Pectoral Sandpiper 1 juv.

Grid Two Census

26 August 1977

0855-1030
40°, 100% overcast
strong W wind

Dunlin 1 ad. & 1 juv.

Long-billed Dowitcher 16 juv.

Red Phalarope 1 juv.

Lapland Longspur 2 juv.

Grid 1 Census
31 August 1977

0843 → 1025
45° 75% overcast
little wind

Pectoral Sandpiper	2 j
Long-billed Dowitcher	2 j
Lapland Longspur	2

Grid 2 Census
31 August 1977

1033 → 1219
45° 75% overcast
little wind

Dunlin	1 unk.
Long-billed Dowitcher	1
Red Phalarope	1 j
Lapland Longspur	2

JP Myers
1977

(1)

TRANSECT SUMMARIES

①

Barrow, Alaska

Each transect = 10 ha.

28 May

#5 1013 - 1050

30°F 100% overcast light N wind shifting to W

Calcarius lapponicus

♂
♀

1
0

Myers + Erickson

Plectrophenax nivalis

♂
♀

1
1

#2 1130 - 1145

Calcarius lapponicus

♂
♀

1
0

Myers + Erickson

#4 1202 - 1220

Calcarius lapponicus

♂
♀

4
0

Myers + Erickson

Plectrophenax nivalis

♂
♀

1
1

29 May

#1

0905 - 0940

25° 20% ^{high} clouds decreasing no wind

Calcarius lapponicus

♂
♀

9
5

Erickson

#3

1130 - surveyed from baseline ridge

0

Myers

#6

0856 - 0920

Calcarius lapponicus

♂
♀

3
0

Myers

Plectrophenax nivalis

♂
♀

1
1

JP Myers
1977

TRANSECT SUMMARIES

(2)

Barrow, Alaska

29 May
(cont'd)

#7 0920 - 0945
Calcarius lapponicus ♂ 5
♀ 5 Myers

#8 0945 - 1010
Calcarius lapponicus ♂ 6
♀ 2 M+E

#9 1015 - 1045
Calcarius lapponicus ♂ 4
♀ 2 M+E

#10 surveyed from RIDGE 0 M

1 June

#1 0900 - 0938 28° 100% overcast, light NW wind, some snow
Calidris alpina 4
Calcarius lapponicus ♂ 13
♀ 8 Erickson
Plectrophenax nivalis ♂ 3
♀ 2

#2 1013 - 1036
Calidris bairdii 1 Erickson
Calcarius lapponicus ♂ 3
♀ 1

#4 1056 - 1125
Calidris alpina ♂ 1
♀ 0
Tryngites subruficollis 1 Erickson
Calcarius lapponicus ♂ 7
♀ 4
Plectrophenax nivalis ♂ 1
♀ 1

#5 1145 - 1220
Calidris bairdii 2 Erickson
Calidris alpina ♂ 3
♀ 0
Calcarius lapponicus ♂ 5
♀ 0

2 June #3 1050 - 1110 32° 80% high cloud cover, light SW wind
Calidris alpina ♂ 1
♀ 1 Erickson

JP Myers
1977

TRANSECT SUMMARIES

(3)

Barrow, Alaska

2 June Calcarius lapponicus ♂ 2
♀ 0

cont'd #6 0805 - 0835

Calidris alpina ♂ 1
♀ 1 Erickson

Calcarius lapponicus ♂ 5
♀ 4

Plectrophenax nivalis ♂ 2
♀ 1

#7 0835 - 0928

Calidris melanotos ♂ 7
♀ 0

Calidris alpina ♂ 1
unknown 6 Erickson

Calcarius lapponicus ♂ 8
♀ 3

Plectrophenax nivalis ♂ 2
♀ 1

#8 0930 - 0955

Erickson

Calcarius lapponicus ♂ 8
♀ 1

#9 0955 - 1025

Pluvialis dominica ♂ 1
♀ 1 Erickson

Calcarius lapponicus ♂ 5
♀ 3

#10 1025 - 1035

Erickson

Calcarius lapponicus ♂ 2
♀ 0

5 June #1 0900 - 0940 32°, 100% cloud cover & occasional thick fog,
some light rain and mist, light N & E wind

Calidris melanotos ♂ 0
♀ 3

Calidris alpina ♂ 1
♀ 1 Erickson

Calidris pusilla ♂ 1
♀ 0

Calcarius lapponicus ♂ 7
♀ 2

#2 1020 - 1055

Pluvialis dominica 1

Calidris melanotos ♂ 1
♀ 2 Erickson

C. bairdii ♂ 1
♀ 0

JP Myers
1977

TRANSECT SUMMARIES

(4)

Barrow, Alaska

5 June
cont'd

Calidris alpina	♂ 1 ♀ 1
Phalaropus fulicarius	♂ 1 ♀ 1
Calcarius lapponicus	♂ 5 ♀ 2

#3 1325 - 1355

Calidris melanotos	♂ 0 ♀ 1	Shuford
Larus hyperboreus	1	
Calcarius lapponicus	♂ 1 ♀ 0	

#4 1107 - 1140

Pluvialis dominica	♂ 1 ♀ 0	
Calidris melanotos	♂ 0 ♀ 2	Erickson
Calcarius lapponicus	♂ 5 ♀ 1	

#5 1205 - 1245

Calidris melanotos	♂ 0 ♀ 1	
C. pusilla	♂ 1 ♀ 0	Erickson
Phalaropus fulicarius	♂ 1 ♀ 1	
Calcarius lapponicus	♂ 5 ♀ 4	
Plectrophenax nivalis	♂ 1 ♀ 1	

#6

0856 - 0945

Calidris bairdii	unknown	1	
Calidris alpina	♂ 2 ♀ 1	1	Shuford
Calidris pusilla	♂ 1 ♀ 1	1	
Calcarius lapponicus	♂ 6 ♀ 1	1	

#7

0947 - 1108

Calidris melanotos	unknown	2	
C. alpina	unknown	1	Shuford
Calcarius lapponicus	♂ 7 ♀ 3	2	
Plectrophenax nivalis	♂ 2 ♀ 2	2	

#8

1110 - 1145

Calidris fuscicollis	unknown	1	
Calidris alpina	♂ 1 unknown	1	Shuford
Calcarius lapponicus	♂ 3 ♀ 2	2	

Transect Summaries

5 June

Barrow, Alaska

(cont.)

# 9	¹¹⁵⁰⁻¹²³⁰ Calidris melanotos	♀ 1	Shuford
	Calcarius lapponicus	♂ 3 ♀ 1	
# 10	¹²³¹⁻¹³⁰² Calidris alpina	unknown 1	Shuford

10 June

1 0825 - 0915 34°, 90% cloud cover, light east wind

Pluvialis dominica	♂ 1 ♀ 0	
Calidris melanotos	♂ 3 ♀ 2	
C. fuscicollis	♂ 1 ♀ 0	Erickson
C. bairdii	♂ 1 ♀ 0	
C. alpina	unknown 2	
Calcarius lapponicus	♂ 7 ♀ 3	

2 0950 - 1030

Calidris melanotos	♂ 1 ♀ 0	
C. bairdii	♂ 1 unknown 1	Erickson
Phalaropus fulicarius	♂ 1 ♀ 3	
Calcarius lapponicus	♂ 5 ♀ 1	

3 1410 - 1500

Calidris melanotos	♂ 5 ♀ 1	
C. alpina	unknown 2	Shuford
Phalaropus fulicarius	♂ 1 ♀ 2	
Calcarius lapponicus	♂ 1 ♀ 0	

4 1045 - 1115

Pluvialis dominica	♂ 1 ♀ 1	
Calidris melanotos	♂ 1 ♀ 0	Erickson
C. bairdii	♂ 1 ♀ 0	
C. alpina	♂ 2 ♀ 2 unknown 1	
Calcarius lapponicus	♂ 7 ♀ 2	

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1977

(6)

TRANSECT SUMMARIES

Barrow, Alaska

10 June

#5

1135 - 1205

cont'd

Calidris melanotos	♂ 1 ♀ 2	
C. bairdii	♂ 1 ♀ 0	Erickson
Phalaropus fulicarius	♂ 0 ♀ 1	
Calcarius lapponicus	♂ 5 ♀ 0	
Plectrophenax nivalis	♂ 1 ♀ 1	

#6

0810 - 0920

Pluvialis dominica	♂ 1 ♀ 0	
Calidris melanotos	♂ 1 ♀ 0	
C. bairdii	♂ 3 ♀ 1 unknown 1	Shuford
C. alpina	♂ 1 ♀ 1 unknown 1	
C. pusilla	unknown 1	
Phalaropus fulicarius	♂ 1 ♀ 1	
Calcarius lapponicus	♂ 7 ♀ 2	

#7

0922 - 1040
Pluvialis dominica

Calidris melanotos	♂ 2 ♀ 1	
C. alpina	♂ 5 ♀ 1 unknown 3	Shuford
Calcarius lapponicus	♂ 11 ♀ 2	

#8

1042 - 1145
Clangula hyemalis

Pluvialis dominica	♂ 3 ♀ 0	
Arenaria interpres	♂ 1 ♀ 1	Shuford
Calidris melanotos	♂ 3 ♀ 1	
C. alpina	♂ 2 unknown 5	
Phalaropus fulcarius	♂ 2 ♀ 3	
Calcarius lapponicus	♂ 4 ♀ 2	

#9

1147 - 1300

Pluvialis dominica	♂ 1 ♀ 0	Shuford
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TRANSECT SUMMARIES

Barrow, Alaska

10 June (cont.)	#9 (cont.)	<i>Calidris melanotos</i>	♂ 5 unknown 1	
		<i>C. bairdii</i>	♂ 1 ♀ 1	
		<i>C. alpina</i>	♂ 3 unknown 1	Shuford
		<i>Phalaropus fulicarius</i>	♂ 1 ♀ 1	
		<i>Acanthis flammea</i>	♂ 1 ♀ 1	
		<i>Calcarius lapponicus</i>	♂ 5 ♀ 2	

#10 1302 - 1346

<i>Calidris melanotos</i>	♂ 5 ♀ 0	Shuford
<i>C. bairdii</i>	♂ 1 unknown 1	
<i>Calcarius lapponicus</i>	♂ 5 ♀ 0	

15 June #1 1128-1212 34° 100% overcast - fog light E wind

<i>Pluvialis dominica</i>	♂ 1 ♀ 1	
<i>Calidris fuscicollis</i>	♂ 1 unknown 1	
<i>C. alpina</i>	4	
<i>C. pusilla</i>	♂ 2 unknown 1	Erickson
<i>C. mauri</i>	♂ 3 unknown/♀ 0	
<i>Calcarius lapponicus</i>	♂ 11 ♀ 2	
<i>Plectrophenax nivalis</i>	♂ 1 ♀ 1	

#2 0915 - 0952

<i>Polysticta stelleri</i>	♂ 1 ♀ 1	
<i>Calidris melanotos</i>	♂ 1 ♀ 0	
<i>C. bairdii</i>	2	
<i>C. alpina</i>	5	Erickson
<i>C. pusilla</i>	♂ 2 unknown 0	
<i>Phalaropus fulicarius</i>	♂ 1 ♀ 1	
<i>Calcarius lapponicus</i>	♂ 4 ♀ 2	

JP Myers
1977

(8)

TRANSECT SUMMARIES

Barrow, Alaska:

15 June #2 cont'd

cont'd Plectrophenax nivalis ♂ 1
♀ 0

#3 0755 - 0803

Arenaria interpres 1

Calidris melanotos ♂ 1
♀ 0

C. bairdii 2 Myers

C. alpina 3

Limnodromus scolopaceus 1

Phalaropus fulicarius ♂ 3
♀ 7

Calcarius lapponicus ♂ 4
♀ 0

#4 1013 - 1100

Pluvialis dominica ♂ 1
♀ 1

Calidris bairdii ♂ 1
unknown 2 Erickson

C. alpina 2

Calcarius lapponicus ♂ 6
♀ 1

#5 0752 - 0847

Anas acuta ♂ 2
♀ 0

Pluvialis dominica ♂ 1
♀ 1

Arenaria interpres 1

Calidris melanotos ♂ 1
♀ 0 Erickson

C. bairdii 1

C. pusilla ♂ 2
unknown 2

Limnodromus scolopaceus ♂ 1
♀ 1

Phalaropus fulicarius ♂ 1
♀ 2

Calcarius lapponicus ♂ 6
♀ 1

Plectrophenax nivalis ♂ 1
♀ 1

TRANSECT SUMMARIES

Barrow, Alaska15 June
(cont.)

6 0755-945 (-30 min.)

Pluvialis dominica

♂ 2
♀ 0

Calidris bairdii

8

C. alpina

7

Shuford

C. mauri

1

Phalaropus fulicarius

♂ 1
♀ 2

Calcarius lapponicus

♂ 14
♀ 3

Plectrophenax nivalis

♂ 2
♀ 0

7 0945-1115 (-20 min.)

Pluvialis dominica

♂ 1
♀ 1

Calidris melanotos

♂ 4
♀ 0

C. bairdii

1

Shuford

C. alpina

2

C. mauri

1

Phalaropus fulicarius

♂ 3
♀ 3

Calcarius lapponicus

♂ 16
♀ 3

8 1125-1236 (-10 min.)

Pluvialis dominica

♂ 2
♀ 0

Arenaria interpres

1

Shuford

Calidris melanotos

♂ 2
♀ 0

C. alpina

6

Phalaropus fulicarius

♂ 2
♀ 4
unknown 1

Calcarius lapponicus

♂ 10
♀ 0

9 1237-1348 (-15 min.)

Pluvialis dominica

♂ 1
♀ 0

Arenaria interpres

♂ 1

Shuford

Calidris melanotos

unknown 1

TRANSECT SUMMARIES

Barrow, Alaska15 June
(cont.)

9 (cont.)

<i>Calidris bairdii</i>	1	
<i>C. alpina</i>	2	Shuford
<i>Phalaropus fulicarius</i>	♂ 2 ♀ 2	
<i>Calcarius lapponicus</i>	♂ 6 ♀ 0	

10 1349-1445

<i>Anas acuta</i>	♂ 2 ♀ 2	
<i>Pluvialis dominica</i>	♂ 3 ♀ 0	
<i>Calidris melanotos</i>	♂ 5 ♀ 0	Shuford
<i>C. bairdii</i>	1	
<i>C. alpina</i>	3	
<i>Phalaropus fulicarius</i>	♂ 2 ♀ 7	

20 June

1 1545 → 1650 34° 90-100% overcast

misty fog off + on (brief snow "flurry")

Wind from the N slight in A.M. moderate in P.M.

<i>Pluvialis dominica</i>	♂ 1 ♀ 0	
<i>Calidris melanotos</i>	♂ 1 ♀ 0	
<i>C. fuscicollis</i>	1	Shuford
<i>C. bairdii</i>	2	
<i>C. alpina</i>	1	
<i>C. pusilla</i>	2	
<i>C. mauri</i>	4	
<i>Phalaropus fulicarius</i>	♂ 5 ♀ 1	
<i>Calcarius lapponicus</i>	♂ 7 ♀ 3	
<i>Plectrophenax nivalis</i>	♂ 0 ♀ 1	

2 1235 → 1341 (-5)

<i>Anas acuta</i>	♂ 1 ♀ 1	Shuford
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Transect Summaries

Barrow, Alaska

20 June
(cont.)

2 (cont.)

Pluvialis dominica ♂ 0
♀ 2

Calidris bairdii 2 Shuford

C. alpina 4

Phalaropus fulicarius ♂ 2
♀ 8

Calcarius lapponicus ♂ 3
♀ 1

4 1425 - 1525

Pluvialis dominica ♂ 4
♀ 0

Calidris melanotos ♂ 2
♀ 0 Shuford

C. bairdii 1

C. alpina 4

Phalaropus fulicarius ♂ 3
♀ 3

Calcarius lapponicus ♂ 9
♀ 2

Plectrophenax nivalis ♂ 1
♀ 0

5 1033 - 1211 (-15)

Anas acuta ♂ 1
♀ 0

Pluvialis dominica ♂ 2
♀ 1

Arenaria interpres ♂ 1
♀ 0 Shuford

Calidris melanotos ♂ 2
♀ 0

C. bairdii 1

C. pusilla 1

Calcarius lapponicus ♂ 6
♀ 5

21 June
(cont.)

34° 100% overcast, misty fog. Wind moderate
from the NE.

#6 0953 - 1113

Calidris melanotos ♂ 10
♀ 1 Shuford

C. bairdii 9

Barrow, Alaska

21 June # 6 (cont)
(cont)

C. alpina

11

Phalaropus fulicarius

♂ 2
♀ 3
♂ 16
♀ 4
♂ 3
♀ 2

Shuford

Calcarius lapponicus

Plectrophenax nivalis

7 1118 - 1241 (-10)

Pluvialis dominica

♂ 3
♀ 3
♂ 5
♀ 1

Calidris melanotos

Shuford

C. alpina

9

C. mauri

Phalaropus fulicarius

♂ 1
♂ 3
♀ 1
♂ 12
♀ 3
♂ 1
♀ 0

Calcarius lapponicus

Plectrophenax nivalis

8 1250 - 1404 (-15)

Anas acuta

♂ 1
♀ 0
♂ 1
♀ 3

Pluvialis dominica

Arenaria interpres

♂ 1
♂ 3
♀ 0

Shuford

Calidris melanotos

C. alpina

6

Micropalama himantopus

Calcarius lapponicus

♂ 1
♂ 9
♀ 3

9 1405 - 1520 (-15)

Pluvialis dominica

♂ 1
♀ 0
♂ 4
♀ 2

Calidris melanotos

C. bairdii

1

Shuford

C. alpina

4

Phalaropus fulicarius

♂ 2
♀ 2
♂ 9
♀ 2

Calcarius lapponicus

10 1528 - 1622

Pluvialis dominica

♂ 0
♀ 1
♂ 3
♀ 0

Calidris melanotos

Shuford

C. alpina

♂ 2

Phalaropus fulicarius

♀ 1

Calcarius lapponicus

Barrow, Alaska

22 June 90% foggy overcast 33° Wind from the east ("moderate") shifting to the north.

3 937-1042

Pluvialis dominica

Calidris melanotos

Phalaropus fulicarius

Calcarius lapponicus

♂ 1
♂ 1
♂ 11
♂ 2
♂ 11
♂ 7
♂ 1
♀ 0

Shuford

25 June

#1 41° at ≈ 1600 100% overcast. Slight wind from the N.

0914 → 1022 (-5)

Calidris melanotos

C. alpina

C. pusilla

C. mauri

Phalaropus fulicarius

Calcarius lapponicus

Plectrophenax nivalis

♂ 10
♀ 1
6
2
4
♂ 2
♀ 0
♂ 15
♀ 8
♂ 3
♀ 1

Shuford

#2 1147 → 1234

Pluvialis dominica

Calidris melanotos

C. alpina

Calcarius lapponicus

♂ 0
♀ 1
♂ 2
♀ 0
3
♂ 6
♀ 3

Shuford

#4 1043 → 1128

Pluvialis dominica

Calidris melanotos

C. alpina

Nyctea scandiaca

Calcarius lapponicus

Plectrophenax nivalis

♂ 1
♀ 0
♂ 2
♀ 1
3
1 ♂
♂ 9
♀ 3
♂ 1
♀ 0

Shuford

#5 1332 → 1435

Arenaria interpres

Calidris melanotos

C. bairdii

♂ 1
♀ 0
♂ 10
♀ 0
1

Shuford

Barrow, Alaska

#5 (cont.)

C. alpina	2	
C. pusilla	3	Shuford
Phalaropus fulicarius	♂ 4 ♀ 50	
Calcarius lapponicus	♂ 8 ♀ 3	

25 June

#6 0903 - 1000

Pluvialis dominica	♂ 2 ♀ 2	
Calidris melanotos	♂ 13 ♀ 0	
C. bairdii	2	
C. alpina	4	Erickson
C. pusilla	2	
C. mauri	2	
Phalaropus fulicarius	♂ 1 ♀ 5	
Calcarius lapponicus	♂ 13 ♀ 6	

#7 1003 - 1100

Pluvialis dominica	♂ 4 ♀ 4	
Calidris melanotos	♂ 3 ♀ 1	Erickson
C. alpina	4	
Phalaropus fulicarius	♂ 1 ♀ 4	
Calcarius lapponicus	♂ 24 ♀ 4	

#8 1101 - 1155

Pluvialis dominica	♂ 1 ♀ 1	
Arenaria interpres	1	
Calidris melanotos	♂ 8 ♀ 0	Erickson
C. alpina	8	
Calcarius lapponicus	♂ 3 ♀ 6	

#9 1158 - 1245

Calidris melanotos	♂ 13 ♀ 1	
Calidris alpina	1	Erickson
Phalaropus fulicarius	♂ 4 ♀ 2	
Calcarius lapponicus	♂ 6 ♀ 1	

23

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Barrow Alaska:

25 June

#10

1245-1330

Calidris melanotos

♂
♀
♂
♀
♂
♀

3
0
1
0
0
1

Ericks on

Phalaropus fulicarius

Calcarius lapponicus

26 June

#3

0913-1012

38°

100% overcast, light

north wind

Pluvialis dominica

♂
♀
♂
♀

0
1
1
1

Calidris melanotos

C. alpina

Phalaropus fulicarius

Calcarius lapponicus

♂
♀
♂
♀

1
5
10
1
0

Ericks on

1 July

#1

34° Wind out of the NE slight to moderate. 100% overcast clearing by ≈ 1000 then scattered clouds, sunny

0746-0849

Pluvialis dominica

Calidris melanotos

C. bairdii

C. alpina

C. pusilla

C. mauri

Phalaropus fulicarius

Calcarius lapponicus

Plectrophenax nivalis

♂
♀
♂
♀

1
2
10
4

4

8

6

2

♂

♀

♂

♀

♂

♀

0

1

24

9

2

1

Shuford

#2

1159-1241

Calidris melanotos

Phalaropus fulicarius

Calcarius lapponicus

♂
♀
♂
♀
♂
♀

6
6
4
4
1
4

Shuford

#3

0908-1001

Pluvialis dominica

Calidris melanotos

Phalaropus fulicarius

♂
♀
♂
♀
♂
♀

1
1
12
13
4
1

Shuford

Barrow, Alaska

1 July (cont.)

3 (cont.)

Plectrophenax nivalis ♂ 0
♀ 1

4 1048-1135

Pluvialis dominica

♂ 3

♀ 2

♂ 3

Calidris melanotos

♀ 2

unknown 1

C. alpina

3

Calcarius lapponicus

♂ 4

♀ 3

Shuford

5 1327-1423 (-5)

Arenaria interpres

♂ 1

♀ 1

♂ 5

Calidris melanotos

♀ 6

unknown 2

→ C. alpina

4

Shuford

C. bairdii

1

C. pusilla

1

Calcarius lapponicus

♂ 3

♀ 5

Plectrophenax nivalis

♂ 1

♀ 0

Transect Summaries

Barrow, Alaska

1 July

#6 0730-0830

Pluvialis dominica	♂	0
	♀	1
Arremonia interpres		1
C. melanotos	♂	7
	♀	2
C. bairdii		2
C. pusilla		2
C. mauri		2
Ph. fulicarius	♂	1
	♀	0
Calcarius lap.	♂	6
	♀	3
Plectrophenax niv.	♂	1
	♀	1

#7 0830-0955

Pluvialis dominica	♂	4
	♀	5
Arremonia interpres		2
C. melanotos	♂	17
	♀	11
C. alpina		17
Ph. fulicarius	♂	1
	♀	0
Calcarius lap.	♂	14
	♀	7

← = !!
← = !!

GACK. FLOCKING -

#8 1000-1100

Pluvialis dominica	♂	1
	♀	0
C. melanotos	♂	12
	♀	8
C. alpina		10
Limnodromus s.		2
Ph. fulicarius	♂	5
	♀	4
Calcarius lap	♂	5
	♀	2

#9 1100-1140

Pluvialis dominica	♂	1
	♀	1
C. melanotos	♂	13
	♀	0
C. alpina		4
Ph. fulicarius	♂	1
	♀	0
Calcarius lap	♂	4
	♀	1

#10 1140-1230

C. melanotos	♂	6
	♀	1
Ph. fulicarius	♂	3
	♀	2
Calcarius	♂	0
	♀	1

Transect Summaries

Barrow, Alaska

5 July

32° Wind strong out of the N shifting to E
100% overcast. Rain in the early morning,
foggy mist later on.

1 1415 - 1511

	♂	1
Pluvialis dominica	♀	0
	♂	5
Calidris melanotos	♀	2
C. alpina		5
C. pusilla		3
C. mauri		1
	♂	3
Calcarius lapponicus	♀	5
	J	1

2 1107 - 1203

	♂	2
Calidris melanotos	♀	0
C. alpina		5
Phalaropus fulicarius	♂	7
	♀	7
C. pusilla		1
	♂	3
Calcarius lapponicus	♀	3
	J	1
	♂	1
Plectrophenax nivalis	♀	1

3

C. alpina		8	1445-1540
C. melanotos	♂	1	
	♀	0	
Ph. fulicarius	♂	9	
	♀	11	
Calcarius lap	♂	1	
	♀	0	
Plectrophenax	♂	1	
	♀	0	

Transect Summaries

Barrow, Alaska

5 July
(cont)

#4 1225-1327 (-5)

Pluvialis dominica	♂	1
	♀	0
Calidris melanotos	♂	2
	♀	0
C. bairdii		2
C. alpina		5
Calcarius lapponicus	♂	3
	♀	2
	J	1
Phalaropus fulicarius	♂	1
	♀	0

#5 0928-1028

Calidris melanotos	♂	2
	♀	1
C. bairdii		2
C. alpina		5
C. pusilla		11
Phalaropus fulicarius	♂	3
	♀	0
Calcarius lapponicus	♂	5
	♀	3
	J	1

#6 0935-1025

Pluvialis dominica	♂	0
	♀	3
C. bairdii		3
C. alpina		8
C. pusilla		2
C. mauri		1
C. melanotos	♂	3
	♀	2
Calcarius lap	♂	4
	♀	3
Plectrophenax niv.	♂	2
	♀	0

Transect summaries

Barrow, Alaska5 July
(cont'd)

#7	1025-1125		
	<i>Pluvialis dominica</i>	♂	2
		♀	1
	<i>C. melanotos</i>	♂	1
		♀	1
	<i>C. alpina</i>		1
	<i>C. mauri</i>		2
	<i>Ph. fulicarius</i>	♂	2
		♀	0
	<i>Calcarius lap</i>	♂	3
		♀	2
	<i>Plectrophenax nivalis</i>	♂	1
		♀	0

#8	1135-1225		
	<i>Pluvialis dominica</i>	♂	1
		♀	2
	<i>C. melanotos</i>	♂	8
		♀	2
	<i>C. alpina</i>		9
	<i>Ph. fulicarius</i>	♂	13
		♀	22
	<i>Limnodromus s.</i>		1
	<i>Calcarius lap</i>	♂	4
		♀	3

#9	1225-1315		
	<i>C. melanotos</i>	♂	3
		♀	2
	<i>C. alpina</i>		1
	<i>Ph. fulicarius</i>	♂	1
		♀	0
	<i>St. longicaudus</i>		2
	<i>St. parasiticus</i>		2
	<i>Calcarius lap</i>	♂	8
		♀	2

#10	1315-1415		
	<i>Pluvialis dominica</i>	♂	1
		♀	0
	<i>C. alpina</i>		3
	<i>Ph. fulicarius</i>	♂	3
		♀	0

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TRANSECT SUMMARIES

21

-extra sample

Barrow, Alaska

8 July

#1 1215-1305

Pluvialis dominica	♂	1
	♀	2
C. alpina		4
C. mauri		3
C. pusilla		3
C. melanotos	♂	10
	♀	3
Calcarivus lap.	♂	5
	♀	5
	j	2
Plectrophenax niv.	♂	1
	♀	0

#2 0925-1020

C. melanotos	♂	13
	♀	3
C. alpina		7
C. pusilla		3
C. mauri		1
Ph. fulicarius	♂	18
	♀	2
Calcarivus	♂	1
	♀	0

#3 1310-1405

C. melanotos	♂	12
	♀	2
C. alpina		2
Ph. fulicarius	♂	3
	♀	0

#4 1035-1145

Pluvialis dominica	♂	1
	♀	6
C. melanotos	♂	9
	♀	2
C. alpina		10
Calcarivus lap.	♂	4
	♀	4
Plectrophenax niv.	♂	2
	♀	2

#5 0800-0855

Arenaria c.		1
C. alpina		7
C. pusilla		3
Ph. fulicarius	♂	1
Calcarivus lap	♂	4
	♀	0

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Transect Accounts

22

EXTRA SAMPLE

Barrow, North Slope Borough, Alaska
~~~~~

8 July

T6 8:30-9:30

|                              |     |   |
|------------------------------|-----|---|
| <i>Pluvialis dominica</i>    | ♂   | 2 |
|                              | ♀   | 2 |
| <i>Calidris melanotos</i>    | ♂   | 2 |
|                              | ♀   | 1 |
| <i>C. bairdii</i>            |     | 1 |
| <i>C. alpina</i>             |     | 3 |
| <i>C. pusilla</i>            |     | 5 |
| <i>Phalaropus fulicarius</i> | ♂   | 1 |
|                              | ♀   | 3 |
| <i>Calcarius lapponicus</i>  | ♂   | 4 |
|                              | ♀   | 2 |
| <i>Plectrophenax nivalis</i> | Juv | 2 |
|                              | ♀   | 1 |

T7 9:35-10:30

|                              |   |   |
|------------------------------|---|---|
| <i>Calidris melanotos</i>    | ♂ | 3 |
|                              | ♀ | 7 |
| <i>C. alpina</i>             |   | 3 |
| <i>Calcarius lapponicus</i>  | ♂ | 2 |
|                              | ♀ | 1 |
| <i>Plectrophenax nivalis</i> | ♂ | 1 |

Juv 1

T8 10:30-11:25

|                                 |   |   |
|---------------------------------|---|---|
| <i>Pluvialis dominica</i>       | ♂ | 1 |
|                                 | ♂ | 1 |
| <i>Arenaria interpres</i>       | ♀ | 1 |
| <i>Calidris melanotos</i>       | ♂ | 1 |
|                                 | ♀ | 4 |
| <i>C. alpina</i>                |   | 4 |
| <i>Limnodromus scolopaceus</i>  |   | 2 |
| <i>Phalaropus fulicarius</i>    | ♂ | 1 |
|                                 | ♀ | 1 |
| <i>Stercorarius longicaudus</i> |   | 1 |

T9 11:30-12:25

|                              |   |   |
|------------------------------|---|---|
| <i>Calidris melanotos</i>    | ♂ | 1 |
|                              | ♀ | 7 |
| <i>C. alpina</i>             |   | 2 |
| <i>Phalaropus fulicarius</i> | ♂ | 1 |

T10 12:25-13:15

|                              |   |   |
|------------------------------|---|---|
| <i>Calidris melanotos</i>    | ♂ | 2 |
|                              | ♀ | 3 |
| <i>C. alpina</i>             |   | 2 |
| <i>Phalaropus fulicarius</i> | ♂ | 2 |





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23

Transect Accounts  
extra sample

Barrow, Alaska

9 July

T1 1130-1230

|                    |   |    |     |
|--------------------|---|----|-----|
| Pluvialis dominica | ♂ | 1  |     |
|                    | ♀ | 1  |     |
| C. alpina          |   | 10 |     |
| C. mauri           |   | 1  |     |
| C. pusilla         |   | 1  |     |
| C. melanotos       | ♂ | 11 |     |
|                    | ♀ | 4  |     |
| Ph. fulicarius     | ♂ | 3  |     |
|                    | ♀ | 0  |     |
| Ardea i            |   | 2  |     |
| Calcarius lap      | ♂ | 5  |     |
|                    | ♀ | 5  |     |
|                    | j | 1  | u 1 |
| Plectrophenax nrv  | ♂ | 1  |     |
|                    | ♀ |    |     |
|                    | j |    |     |

#2 0900-0945

|                |   |   |  |
|----------------|---|---|--|
| C. melanotos   | ♂ | 1 |  |
|                | ♀ | 3 |  |
| C. bairdii     |   | 2 |  |
| C. pusilla     |   | 2 |  |
| C. mauri       |   | 1 |  |
| C. alpina      |   | 5 |  |
| Ph. fulicarius | ♂ | 8 |  |
|                | ♀ | 1 |  |

|    |                   |   |    |           |
|----|-------------------|---|----|-----------|
| #3 | C. melanotos      | ♂ | 26 | 1250-1345 |
|    |                   | ♀ | 3  |           |
|    | C. mauri          |   | 1  |           |
|    | Ph. fulicarius    | ♂ | 7  |           |
|    |                   | ♀ | 0  |           |
|    | Larus hyperboreus |   | 6  |           |

#4 1010-1100

|                          |   |   |  |
|--------------------------|---|---|--|
| Pluvialis dominica       | ♀ | 1 |  |
| C. melanotos             | ♂ | 5 |  |
|                          | ♀ | 1 |  |
| C. alpina                |   | 1 |  |
| Calcarius lap            | ♂ | 1 |  |
|                          | ♀ | 3 |  |
|                          | j | 1 |  |
| Stercorarius parasiticus |   | 1 |  |

#5 0740-0825

|                |   |   |  |
|----------------|---|---|--|
| Pluvialis d.   | ♀ | 1 |  |
| C. alpina      |   | 8 |  |
| C. pusilla     |   | 2 |  |
| Ph. fulicarius | ♂ | 3 |  |
|                | ♀ | 0 |  |





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# Transect Accounts

EXTRA SAMPLE

24

Barrow, North Slope Borough, Alaska

9 July

T6 8:00-9:00

|                       |   |   |                           |
|-----------------------|---|---|---------------------------|
| Pluvialis dominica    | ♂ | 1 |                           |
|                       | ♀ | 1 |                           |
| Calidris melanotos    | ♀ | 1 |                           |
| C. bairdii            |   | 1 |                           |
| C. alpina             |   | 1 |                           |
| C. pusilla            |   | 2 |                           |
| ←                     |   |   | Phalaropus fulicarius ♀ 1 |
| Calcarius lapponicus  | ♂ | 2 |                           |
|                       | ♀ | 1 |                           |
| Plectrophenax nivalis | ♂ | 1 |                           |
|                       | ♀ | 1 |                           |

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T7 9:00-9:55

|                       |     |   |  |
|-----------------------|-----|---|--|
| Calidris melanotos    | ♂   | 2 |  |
|                       | ♀   | 3 |  |
| C. alpina             |     | 3 |  |
| Phalaropus fulicarius | ♂   | 1 |  |
|                       | ♂   | 5 |  |
| Calcarius lapponicus  | Juv | 1 |  |
|                       | Unk | 1 |  |

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T8 10:00-11:00

|                       |     |   |  |
|-----------------------|-----|---|--|
| Pluvialis dominica    | ♂   | 1 |  |
| Arenaria interpres    | ♂   | 1 |  |
| Calidris melanotos    | ♂   | 1 |  |
|                       | ♀   | 3 |  |
| C. alpina             |     | 1 |  |
| Phalaropus fulicarius | ♂   | 1 |  |
|                       | ♀   | 1 |  |
|                       | unk | 1 |  |
| Calcarius lapponicus  | ♂   | 2 |  |

L Stenzel

T9 11:00-11:45

|                      |     |   |  |
|----------------------|-----|---|--|
| Calidris melanotos   | ♂   | 1 |  |
|                      | ♀   | 1 |  |
| Calidris alpina      |     | 1 |  |
| Calcarius lapponicus | unk | 1 |  |

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T10 11:45-11:40

|                          |   |   |  |
|--------------------------|---|---|--|
| Calidris melanotos       | ♂ | 1 |  |
|                          | ♀ | 4 |  |
| C. alpina                |   | 2 |  |
| Phalaropus fulicarius    | ♀ | 1 |  |
| Stercorarius longicaudus |   | 1 |  |

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# TRANSECT SUMMARIES

25

## Barrow, Alaska

11 July

T1 1130-1225

|                           |   |   |
|---------------------------|---|---|
| <i>Pluvialis dominica</i> | ♂ | 1 |
|                           | ♀ | 0 |
| <i>C. melanotos</i>       | ♂ | 2 |
|                           | ♀ | 1 |
| <i>C. alpina</i>          |   | 3 |
| <i>C. mauri</i>           |   | 1 |
| <i>C. pusilla</i>         |   | 1 |
| <i>Calcarus l.</i>        | ♂ | 6 |
|                           | ♀ | 3 |
|                           | j | 1 |
| <i>Plectrophenax</i>      | ♂ | 1 |
|                           | ♀ | 0 |

T2 0900-0950

|                              |   |    |         |
|------------------------------|---|----|---------|
| <i>Somateria spectabilis</i> | ♀ | 1  |         |
| <i>C. melanotos</i>          | ♂ | 15 |         |
|                              | ♀ | 5  |         |
| <i>C. alpina</i>             |   | 9  |         |
| <i>C. pusilla</i>            |   | 3  |         |
| <i>Ph. fulicarius</i>        | ♂ | 10 |         |
|                              | ♀ | 0  |         |
| <i>Calcarus lap</i>          | ♂ | 3  |         |
|                              | ♀ | 2  | unknown |
|                              | j | 3  |         |

T3 1235-1340

|                       |   |    |
|-----------------------|---|----|
| <i>C. melanotos</i>   | ♂ | 45 |
|                       | ♀ | 11 |
| <i>C. mauri</i>       |   | 2  |
| <i>C. alpina</i>      |   | 4  |
| <i>Ph. fulicarius</i> | ♂ | 53 |
|                       | ♀ | 1  |

T4 1005-1055

|                           |   |    |         |
|---------------------------|---|----|---------|
| <i>Pluvialis dominica</i> | ♂ | 4  | unk = 1 |
|                           | ♀ | 8  |         |
| <i>C. melanotos</i>       | ♂ | 14 |         |
|                           | ♀ | 8  |         |
| <i>C. alpina</i>          |   | 5  |         |
| <i>Calcarus lap</i>       | ♂ | 2  |         |
|                           | ♀ | 2  |         |
| <i>Plectrophenax niv.</i> | ♂ | 1  |         |
|                           | ♀ | 1  |         |

T5 0730-0820

|                           |     |   |                         |
|---------------------------|-----|---|-------------------------|
| <i>Pluvialis dominica</i> | unk | 1 |                         |
| <i>C. melanotos</i>       | ♂   | 7 | <i>Passerculus s.</i> 1 |
|                           | ♀   | 3 |                         |
| <i>C. bairdii</i>         |     | 1 | <i>Calcarus lap</i> ♂ 2 |
| <i>C. pusilla</i>         |     | 2 | ♀ 1                     |
| <i>C. alpina</i>          |     | 1 |                         |
| <i>Ph. fulicarius</i>     | ♂   | 1 |                         |





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# Transect Accounts

26

## Barrow, North Slope Borough, Alaska

11 July

T6 7:40-8:45

|                              |     |   |
|------------------------------|-----|---|
| <i>Pluvialis dominica</i>    | ♂   | 1 |
| <i>Calidris melanotos</i>    | ♂   | 1 |
|                              | ♀   | 1 |
| <i>C. alpina</i>             |     | 3 |
| <i>Phalaropus fulicarius</i> | ♂   | 1 |
| <i>Calcarius lapponicus</i>  | ♂   | 2 |
|                              | Juv | 1 |
| <i>Plectrophenax nivalis</i> | ♂   | 2 |

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T7 8:50-9:50

|                             |     |   |
|-----------------------------|-----|---|
| <i>Calidris melanotos</i>   | ♂   | 2 |
|                             | ♀   | 4 |
| <i>Calidris alpina</i>      |     | 2 |
| <i>Calcarius lapponicus</i> | ♂   | 3 |
|                             | ♀   | 1 |
|                             | Juv | 2 |
|                             | Unk | 1 |

L Stenzel

T8 9:50-10:55

|                              |     |   |
|------------------------------|-----|---|
| <i>Arenaria interpres</i>    | Unk | 1 |
| <i>Calidris melanotos</i>    | ♂   | 1 |
|                              | ♀   | 2 |
| <i>Calidris alpina</i>       |     | 2 |
| <i>Phalaropus fulicarius</i> | ♂   | 2 |
|                              | ♀   | 1 |
|                              | Unk | 1 |
| <i>Calcarius lapponicus</i>  | ♀   | 1 |
|                              | Unk | 1 |

L Stenzel

T9 11:00-12:00

|                                 |   |   |
|---------------------------------|---|---|
| <i>Calidris melanotos</i>       | ♂ | 2 |
|                                 | ♀ | 7 |
| <i>Calidris pusilla</i>         |   | 1 |
| <i>Stercorarius longicaudus</i> |   | 1 |
| <i>Calcarius lapponicus</i>     | ♂ | 4 |

L Stenzel

T10 12:00-13:00

|                              |     |   |
|------------------------------|-----|---|
| <i>Calidris melanotos</i>    | ♂   | 5 |
|                              | ♀   | 2 |
| <i>Calidris alpina</i>       |     | 3 |
| <i>Phalaropus fulicarius</i> | ♂   | 1 |
|                              | ♀   | 1 |
| <i>Calcarius lapponicus</i>  | ♂   | 1 |
|                              | ♀   | 1 |
|                              | Juv | 1 |

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# Transect Accounts

27

## Barrow, North Slope Borough, Alaska

15 July

T6 8:00-8:50

|                                 |     |   |
|---------------------------------|-----|---|
| <i>Calidris melanotos</i>       | ♂   | 1 |
|                                 | ♀   | 3 |
| <i>Calidris alpina</i>          |     | 4 |
| <i>Phalaropus fulicarius</i>    | ♂   | 1 |
| <i>Stercorarius longicaudus</i> |     | 1 |
| <i>Calcarius lapponicus</i>     | ♂   | 2 |
|                                 | Juv | 2 |

L Stenzel

T7 8:50-9:50

|                                 |     |   |
|---------------------------------|-----|---|
| <i>Pluvialis dominica</i>       |     | 2 |
| <i>Calidris melanotos</i>       | ♂   | 5 |
|                                 | ♀   | 4 |
|                                 | unk | 1 |
| <i>Calidris alpina</i>          |     | 3 |
| <i>Stercorarius longicaudus</i> |     | 2 |
| <i>Calcarius lapponicus</i>     | ♂   | 1 |
|                                 | Juv | 1 |
| <i>Plectrophenax nivalis</i>    | ♂   | 1 |

L Stenzel

T8 9:50-10:45

|                                |     |   |
|--------------------------------|-----|---|
| <i>Pluvialis dominica</i>      |     | 1 |
| <i>Calidris melanotos</i>      | ♂   | 1 |
|                                | ♀   | 1 |
| <i>Calidris alpina</i>         |     | 3 |
| <i>Limnodromus scolopaceus</i> |     | 2 |
| <i>Phalaropus fulicarius</i>   | ♂   | 1 |
| <i>Calcarius lapponicus</i>    | ♂   | 2 |
|                                | Juv | 2 |

L Stenzel

T9 10:45-11:30

|                              |     |   |
|------------------------------|-----|---|
| <i>Pluvialis dominica</i>    | ♂   | 1 |
|                              | ♀   | 1 |
|                              | unk | 1 |
| <i>Calidris melanotos</i>    | ♂   | 3 |
|                              | unk | 1 |
| <i>Calidris alpina</i>       |     | 1 |
| <i>Phalaropus fulicarius</i> | ♀   | 1 |
|                              | ♂   | 2 |
| <i>Calcarius lapponicus</i>  | Juv | 1 |

L Stenzel

T10 11:30-12:20

|                                |   |   |
|--------------------------------|---|---|
| <i>Arenaria interpres</i>      | ♂ | 1 |
|                                | ♀ | 1 |
| <i>Calidris melanotos</i>      | ♂ | 5 |
|                                | ♀ | 5 |
| <i>Limnodromus scolopaceus</i> |   | 1 |
| <i>Phalaropus fulicarius</i>   | ♂ | 1 |
|                                | ♀ | 1 |
| <i>Calcarius lapponicus</i>    | ♀ | 2 |

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28

# Transect Accounts

## Banow, Alaska

15 July 1977

T1 1120-1205

|                    |     |   |   |   |
|--------------------|-----|---|---|---|
| Pluvialis dominica | ♂   | 1 |   |   |
|                    | ♀   | 0 |   |   |
|                    | juv | 6 |   |   |
| C. melanotos       | ♂   | 4 |   |   |
|                    | ♀   | 1 |   |   |
| C. alpina          |     | 3 |   |   |
| Calcarius lap      | ♂   | 6 |   |   |
|                    | ♀   | 3 | 0 | 1 |
|                    | juv | 2 |   |   |

T2 0855-0950

|                    |   |   |   |  |
|--------------------|---|---|---|--|
| Pluvialis dominica |   | 2 |   |  |
| C. melanotos       | ♂ | 7 |   |  |
|                    | ♀ | 3 |   |  |
| C. alpina          |   | 2 |   |  |
| C. pusilla         | a | 1 |   |  |
|                    | j | 2 | ← |  |
| Ph. fulicarius     | ♂ | 3 |   |  |
|                    | ♀ | 0 |   |  |
| Calcarius          | ♂ | 4 |   |  |
|                    | ♀ | 0 |   |  |
|                    | j | 1 |   |  |

T3 1215-1320

|                 |   |    |  |  |
|-----------------|---|----|--|--|
| C. melanotos    | ♂ | 37 |  |  |
|                 | ♀ | 13 |  |  |
| C. alpina       |   | 10 |  |  |
| Ph. fulicarius  | ♂ | 20 |  |  |
|                 | ♀ | 0  |  |  |
| St. longicaudus |   | 1  |  |  |

T4 1010-1055

|                    |   |   |  |  |
|--------------------|---|---|--|--|
| Pluvialis dominica |   | 7 |  |  |
| C. alpina          |   | 7 |  |  |
| C. melanotos       | ♂ | 2 |  |  |
|                    | ♀ | 1 |  |  |
| Ph. fulicarius     | ♂ | 1 |  |  |
|                    | ♀ | 0 |  |  |
| St. longicaudus    |   | 1 |  |  |
| Calcarius lap      | ♂ | 2 |  |  |
|                    | ♀ | 1 |  |  |
|                    | j | 2 |  |  |
| Plectrophenax      | ♂ | 3 |  |  |
|                    | ♀ | 1 |  |  |
|                    | j |   |  |  |

T5 0740-0835

|              |   |    |                |   |   |                   |   |
|--------------|---|----|----------------|---|---|-------------------|---|
| Pluvialis d. |   | 3  | Ph. fulicarius | ♂ | 1 |                   |   |
| C. alpina    |   | 16 |                | ♀ | 0 | stercorarius long | 1 |
| C. melanotos | ♂ | 22 | Limodromus     |   | 1 |                   |   |
|              | ♀ | 4  | Calcarius      | ♂ | 0 |                   |   |
|              |   |    |                | ♀ | 0 |                   |   |
|              |   |    |                | j | 2 |                   |   |





JP Myers  
1977

29

## Transect Accounts

### Barrow, Alaska

20 July

T 1 0750-0845

|                       |      |   |
|-----------------------|------|---|
| Pluvialis dominica    |      | 4 |
| Calidris melanotos    | ♀    | 1 |
| C. alpina             | ad.  | 7 |
|                       | juv. | 1 |
| Phalaropus fulicarius | ♂    | 1 |
|                       | ♂    | 3 |
| Calcarius lapponicus  | ♀    | 1 |
|                       | juv. | 3 |

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T 2 1015-1055

|                       |   |   |
|-----------------------|---|---|
| Pluvialis dominica    |   | 1 |
| Calidris melanotos    | ♂ | 2 |
|                       | ♀ | 3 |
| Phalaropus fulicarius | ♂ | 1 |
| Nyctea scandiaca      | ♂ | 1 |

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T 3 0900-0950

|                       |   |    |
|-----------------------|---|----|
| Calidris melanotos    | ♂ | 7  |
|                       | ♀ | 4  |
| C. alpina             |   | 5  |
| C. pusilla            |   | 2  |
| C. mauri              |   | 1  |
| Phalaropus fulicarius | ♂ | 11 |

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T 4 1115-1205

|                       |      |   |
|-----------------------|------|---|
| Pluvialis dominica    |      | 3 |
| Calidris melanotos    | ♂    | 1 |
| C. bairdii            |      | 1 |
| C. alpina             | ad.  | 6 |
|                       | juv. | 3 |
|                       | ♂    | 1 |
| Calcarius lapponicus  | ♀    | 1 |
|                       | juv. | 6 |
| Plectrophenax nivalis | ♂    | 1 |

Erickson

T 5 1225-1305

|                       |   |   |
|-----------------------|---|---|
| Calidris melanotos    | ♂ | 4 |
| C. alpina             |   | 2 |
| Phalaropus fulicarius | ♂ | 1 |
| Calcarius lapponicus  | ♂ | 1 |

Erickson

21 July

T 6 0855-0940

|                       |      |   |
|-----------------------|------|---|
| Pluvialis dominica    |      | 7 |
| Calidris melanotos    | ♂    | 1 |
| C. bairdii            |      | 1 |
| C. alpina             |      | 5 |
| Phalaropus fulicarius | ♂    | 3 |
|                       | ♂    | 3 |
| Calcarius lapponicus  | juv. | 6 |
|                       | ♀    | 3 |
| Plectrophenax nivalis | juv. | 4 |

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30

## Transect Accounts

### Barrow, Alaska

21 July

T 7 0940 - 1030

cont'

|                         |   |
|-------------------------|---|
| Pluvialis dominica      | 3 |
| Calidris melanotos ♂    | 1 |
| C. alpina               | 7 |
| Phalaropus fulicarius ♂ | 1 |
| ♂                       | 3 |
| Calcarius lapponicus ♀  | 1 |
| juv.                    | 2 |

Erickson

T 8 1030 - 1120

|                         |   |
|-------------------------|---|
| Pluvialis dominica      | 2 |
| Calidris melanotos ♂    | 1 |
| C. alpina               | 4 |
| Phalaropus fulicarius ♂ | 3 |
| Calcarius lapponicus ♂  | 2 |

Erickson

T 9 1130 - 1220

|                          |    |
|--------------------------|----|
| Pluvialis dominica       | 4  |
| Calidris melanotos ♂     | 11 |
| C. alpina ad.            | 6  |
| juv.                     | 3  |
| Stercorarius longicaudus | 1  |
| Calcarius lapponicus ♂   | 2  |
| juv.                     | 14 |

Erickson

T 10 1220 - 1300

|                           |   |
|---------------------------|---|
| Pluvialis dominica        | 3 |
| Calidris melanotos ♂      | 4 |
| ♀                         | 2 |
| C. alpina ad.             | 4 |
| juv.                      | 1 |
| Phalaropus fulicarius ♂   | 1 |
| Calcarius lapponicus juv. | 1 |

Erickson

25 July

T 1 1035 - 1115

|                        |   |
|------------------------|---|
| Pluvialis dominica     | 2 |
| Calidris alpina ad.    | 1 |
| juv.                   | 2 |
| C. pusilla             | 1 |
| ♂                      | 1 |
| Calcarius lapponicus ♀ | 1 |
| juv.                   | 2 |

Erickson

T 2 0855 - 0930

|                      |   |
|----------------------|---|
| Pluvialis dominica   | 6 |
| Calidris melanotos ♀ | 2 |
| C. alpina            | 1 |
| C. pusilla           | 6 |

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# Transect Accounts

31

## Barrow, Alaska

25 July

T 2 cont'd

cont'd

|                          |       |   |          |
|--------------------------|-------|---|----------|
| Phalaropus fulicarius    | ad. ♂ | 2 | Erickson |
|                          | juv.  | 2 |          |
| Stercorarius longicaudus |       | 1 |          |
| Calcarius lapponicus     | juv.  | 2 |          |

T 3 1125 - 1205

|                       |       |    |          |
|-----------------------|-------|----|----------|
| Pluvialis dominica    |       | 8  | Erickson |
| Calidris melanotos    | ♀     | 5  |          |
|                       |       | 11 |          |
| C. alpina             | ad.   | 7  |          |
|                       | juv.  | 2  |          |
| C. pusilla            |       | 3  |          |
| Phalaropus fulicarius | ad. ♂ | 2  |          |
|                       | juv.  | 1  |          |
| Calcarius lapponicus  | ad. ♀ | 5  |          |
|                       | juv.  |    |          |

T 4 0940 - 1020

|                      |      |   |          |
|----------------------|------|---|----------|
| Pluvialis dominica   |      | 1 | Erickson |
| Calidris bairdii     |      | 1 |          |
|                      |      | 1 |          |
| C. alpina            | ad.  | 4 |          |
|                      | juv. | 1 |          |
| C. pusilla           |      | 2 |          |
| Calcarius lapponicus | ♂    | 1 |          |
|                      | ♀    | 3 |          |
|                      | juv. |   |          |

T 5 0745 - 0835

|                       |      |    |          |
|-----------------------|------|----|----------|
| Anas acuta            | ♀    | 20 | Erickson |
| Pluvialis dominica    |      | 7  |          |
| Calidris melanotos    | ♀    | 7  |          |
| C. fuscicollis        |      | 1  |          |
|                       |      | 5  |          |
| C. alpina             | ad.  | 2  |          |
|                       | juv. | 8  |          |
| C. pusilla            |      | 1  |          |
| Phalaropus fulicarius | ♂    | 1  |          |
| Calcarius lapponicus  | ♂    | 1  |          |

27 July

T 6 0840 - 0925

|                       |       |   |          |
|-----------------------|-------|---|----------|
| Pluvialis dominica    |       | 4 | Erickson |
| C. melanotos          | ♂     | 1 |          |
|                       | ♀     | 1 |          |
| C. alpina             | ad.   | 7 |          |
|                       | juv.  | 1 |          |
| Calcarius lapponicus  | ad. ♂ | 2 |          |
|                       | juv.  | 4 |          |
| Plectrophenax nivalis | juv.  | 1 |          |

T 7 0925 - 1010

|                    |  |   |          |
|--------------------|--|---|----------|
| Pluvialis dominica |  | 2 | Erickson |
| Calcarius alpina   |  | 2 |          |





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1977

32

# Transect Accounts

## Barrow, Alaska

27 July  
cont'd

T 7 cont'd

|                            |   |          |
|----------------------------|---|----------|
| Calidris pusilla           | 1 |          |
| Phalaropus fulicarius ♂    | 1 | Erickson |
| Stercorarius longicaudus   | 1 |          |
| Calcarius lapponicus ad. ♀ | 1 |          |
| juv.                       | 2 |          |

T 8 1010 - 1050

|                             |   |          |
|-----------------------------|---|----------|
| Pluvialis dominica          | 2 |          |
| Calidris alpina ad.         | 5 |          |
| juv.                        | 1 |          |
| Phalaropus fulicarius ad. ♂ | 3 | Erickson |
| juv.                        | 2 |          |
| Stercorarius longicaudus    | 2 |          |
| Calcarius lapponicus ad. ♀  | 1 |          |
| juv.                        | 1 |          |

T 9 1050 - 1135

|                            |    |          |
|----------------------------|----|----------|
| Pluvialis dominica         | 7  |          |
| Calidris alpina ad.        | 3  |          |
| juv.                       | 3  |          |
| Stercorarius parasiticus   | 1  | Erickson |
| S. longicaudus             | 1  |          |
| Calcarius lapponicus ad. ♂ | 2  |          |
| juv.                       | 15 |          |

T 10 1135 - 1215

|                             |   |          |
|-----------------------------|---|----------|
| Pluvialis dominica          | 5 |          |
| Calidris melanotos ♀        | 2 |          |
| C. alpina                   | 3 |          |
| Phalaropus fulicarius ad. ♂ | 1 | Erickson |
| juv.                        | 1 |          |
| Stercorarius longicaudus    | 1 |          |
| Calcarius lapponicus juv.   | 2 |          |

30 July

T 1 1030 - 1107

|                         |   |          |
|-------------------------|---|----------|
| Calidris alpina ad.     | 4 |          |
| juv.                    | 2 |          |
| Phalaropus fulicarius ♂ | 1 |          |
| ♂                       | 2 | Erickson |
| Calcarius lapponicus ♀  | 3 |          |
| juv.                    | 6 |          |

T 2 1255 - 1330

|                         |   |          |
|-------------------------|---|----------|
| Calidris alpina juv.    | 1 |          |
| Phalaropus fulicarius ♂ | 1 | Erickson |
| juv.                    | 2 |          |





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# Transect Accounts

## Barrow Alaska

30 July

T 3 1115 - 1205

|        |                       |       |   |          |
|--------|-----------------------|-------|---|----------|
| cont'd | Anas acuta            | ♀     | 7 |          |
|        | Calidris melanotos    | ♀     | 6 | Erickson |
|        | C. alpina             | ad.   | 1 |          |
|        |                       | juv.  | 1 |          |
|        | Phalaropus fulicarius | ad. ♂ | 1 |          |
|        |                       | juv.  | 2 |          |

T 4 1340 - 1420

|  |                      |      |    |          |
|--|----------------------|------|----|----------|
|  | Pluvialis dominica   |      | 1  |          |
|  | Calidris melanotos   | ♀    | 16 | Erickson |
|  | C. alpina            | ad.  | 8  |          |
|  |                      | juv. | 4  |          |
|  | Calcarius lapponicus | ♀    | 1  |          |
|  |                      | juv. | 1  |          |

T 5 0925 - 1015

|  |                       |       |    |          |
|--|-----------------------|-------|----|----------|
|  | Calidris melanotos    | ad. ♀ | 5  |          |
|  |                       | juv.  | 1  |          |
|  | C. alpina             | ad.   | 19 |          |
|  |                       | juv.  | 1  | Erickson |
|  | C. mauri              | juv.  | 1  |          |
|  | Phalaropus fulicarius | ad. ♂ | 1  |          |
|  |                       | juv.  | 1  |          |
|  | Calcarius lapponicus  | juv.  | 1  |          |

31 July

T 6 0845 - 0930

|  |                       |      |   |          |
|--|-----------------------|------|---|----------|
|  | Pluvialis dominica    |      | 3 |          |
|  | Calidris melanotos    | ♀    | 7 |          |
|  | C. alpina             | ad.  | 3 |          |
|  |                       | juv. | 2 | Erickson |
|  | Phalaropus fulicarius | juv. | 1 |          |
|  |                       | ♂    | 2 |          |
|  | Calcarius lapponicus  | ♀    | 1 |          |
|  |                       | juv. | 3 |          |

T 7 0935 - 1025

|  |                      |      |   |          |
|--|----------------------|------|---|----------|
|  | Pluvialis dominica   |      | 4 |          |
|  | Calidris melanotos   | ♀    | 1 |          |
|  | C. alpina            | ad.  | 7 |          |
|  |                      | juv. | 2 | Erickson |
|  |                      | ♂    | 1 |          |
|  | Calcarius lapponicus | ♀    | 2 |          |
|  |                      | juv. | 2 |          |

T 8 1025 - 1105

|  |                       |      |   |          |
|--|-----------------------|------|---|----------|
|  | Pluvialis dominica    |      | 3 |          |
|  | Calidris alpina       |      | 3 |          |
|  | C. pusilla            | juv. | 1 |          |
|  | Phalaropus fulicarius | juv. | 2 | Erickson |
|  | Calcarius lapponicus  |      | 2 |          |





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## Transect Accounts

Barrow Alaska31 July  
cont'd

T9 1105 - 1145

|                              |   |
|------------------------------|---|
| Pluvialis dominica           | 5 |
| Calidris melanotos ♀         | 2 |
| C. alpina juv.               | 1 |
| Tryngites subruficollis juv. | 1 |
| Calcarius lapponicus juv.    | 8 |

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T10 1145 - 1230

|                           |   |
|---------------------------|---|
| Calidris melanotos ♀      | 2 |
| C. alpina ad.             | 5 |
| juv.                      | 4 |
| Stercorarius parasiticus  | 1 |
| Calcarius lapponicus juv. | 9 |

Erickson

5 August

T1 0940 - 1025

|                            |    |
|----------------------------|----|
| Pluvialis dominica         | 1  |
| Calidris melanotos juv.    | 3  |
| C. alpina ad.              | 10 |
| juv.                       | 4  |
| Calcarius lapponicus ad. ♂ | 1  |
| juv.                       | 23 |

Erickson

T2 0745 - 0830

|                            |    |
|----------------------------|----|
| Anas acuta ♀               | 8  |
| Pluvialis dominica juv.    | 2  |
| Calidris melanotos juv.    | 14 |
| C. alpina ad.              | 16 |
| juv.                       | 3  |
| C. mauri juv.              | 1  |
| Phalaropus fulicarius juv. | 1  |
| Calcarius lapponicus juv.  | 14 |

Erickson

T3 1040 - 1120

|                            |    |
|----------------------------|----|
| Calidris melanotos juv.    | 16 |
| C. alpina ad.              | 4  |
| juv.                       | 2  |
| C. mauri juv.              | 1  |
| Phalaropus fulicarius juv. | 5  |
| Calcarius lapponicus juv.  | 4  |

Erickson

T4 0845 - 0925

|                            |    |
|----------------------------|----|
| Pluvialis dominica ad.     | 1  |
| juv.                       | 2  |
| Calidris melanotos juv.    | 25 |
| C. alpina ad.              | 6  |
| juv.                       | 8  |
| Phalaropus fulicarius juv. | 1  |
| ♂                          | 2  |
| Calcarius lapponica ♀      | 4  |
| juv.                       | 14 |

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# Transect Accounts

## Barrow, Alaska:

5 August

T 5 1140 - 1220

cont'd

|                        |      |    |
|------------------------|------|----|
| Anas platyrhynchos     | ♀    | 2  |
| Calidris melanotos     | juv. | 10 |
| C. alpina              | ad.  | 26 |
|                        | juv. | 2  |
| C. pusilla             | juv. | 1  |
| C. mauri               | juv. | 6  |
| Micropalama himantopus | juv. | 1  |
| Phalaropus fulicarius  | juv. | 3  |
| Calcarius lapponicus   | juv. | 11 |

Erickson

6 August

T 6 0825 - 0905

|                       |      |    |
|-----------------------|------|----|
| Pluvialis dominica    | ad.  | 3  |
|                       | juv. | 2  |
| Calidris melanotos    | juv. | 1  |
| Calidris alpina       | ad.  | 10 |
|                       | juv. | 2  |
| Phalaropus fulicarius | juv. | 2  |
| Calcarius lapponicus  | juv. | 32 |

Erickson

T 7 0905 - 0950

|                       |      |    |
|-----------------------|------|----|
| Pluvialis dominica    | ad.  | 3  |
|                       | juv. | 1  |
| Calidris melanotos    | juv. | 1  |
| C. alpina             |      | 4  |
| C. pusilla            | juv. | 1  |
| Phalaropus fulicarius | juv. | 1  |
|                       | ♂    | 1  |
| Calcarius lapponicus  | ♀    | 1  |
|                       | juv. | 21 |

Erickson

T 8 0950 - 1035

|                       |      |    |
|-----------------------|------|----|
| Calidris melanotos    | ♀    | 1  |
|                       | juv. | 3  |
| C. bairdii            |      | 1  |
| C. alpina             | ad.  | 14 |
|                       | juv. | 4  |
| C. pusilla            | juv. | 4  |
| C. mauri              | juv. | 1  |
| Phalaropus fulicarius | juv. | 1  |
|                       | ♀    | 1  |
| Calcarius lapponicus  | juv. | 6  |

Erickson

T 9 1035 - 1110

|                      |      |   |
|----------------------|------|---|
| Calidris melanotos   | juv. | 4 |
| C. alpina            |      | 1 |
| Calcarius lapponicus | juv. | 6 |

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# Transect Accounts

36

## Barrow, Alaska:

6 August

T 10 1120 - 1150

cont'd

|                       |      |   |          |
|-----------------------|------|---|----------|
| Pluvialis dominica    |      | 1 |          |
| Calidris melanotos    | juv. | 4 |          |
| C. alpina             | ad.  | 1 |          |
|                       | juv. | 1 | Erickson |
| C. mauri              | juv. | 1 |          |
| Phalaropus fulicarius | juv. | 1 |          |
| Calcarius lapponicus  | juv. | 8 |          |

9 August

T 1 1030 - 1110

|                       |      |    |          |
|-----------------------|------|----|----------|
| Pluvialis dominica    | juv. | 1  | Erickson |
| Calidris alpina       |      | 11 |          |
| Phalaropus fulicarius | juv. | 1  |          |
| Calcarius lapponicus  | juv. | 14 |          |

T 2 0850 - 0935

|                         |      |    |          |
|-------------------------|------|----|----------|
| Pluvialis dominica      | juv. | 1  |          |
| Calidris melanotos      | juv. | 3  |          |
| C. alpina               | ad.  | 17 |          |
|                         | juv. | 1  |          |
| C. mauri                | juv. | 1  | Erickson |
| Limnodromus scolopaceus |      | 1  |          |
| Phalaropus fulicarius   | juv. | 3  |          |
| Calcarius lapponicus    | juv. | 11 |          |

T 3 1120 - 1200

|                       |      |    |          |
|-----------------------|------|----|----------|
| Anas acuta            | ♀    | 6  |          |
| Calidris melanotos    | juv. | 8  |          |
| C. alpina             | ad.  | 9  | Erickson |
|                       | juv. | 6  |          |
| Phalaropus fulicarius | juv. | 3  |          |
| Calcarius lapponicus  | juv. | 28 |          |

T 4 0950 - 1020

|                      |      |   |          |
|----------------------|------|---|----------|
| Calidris melanotos   | juv. | 5 | Erickson |
|                      | ad.  | 3 |          |
| C. alpina            | juv. | 2 |          |
| Calcarius lapponicus | juv. | 8 |          |

T 5 1220 - 1300

|                    |      |   |          |
|--------------------|------|---|----------|
| Pluvialis dominica | juv. | 1 | Erickson |
| Calidris melanotos | juv. | 3 |          |
| C. alpina          | ad.  | 1 |          |





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# Transect Accounts

## Barrow Alaska:

|          |                       |      |    |          |
|----------|-----------------------|------|----|----------|
| 9 August | T 5 cont'd            |      |    |          |
|          | Calidris alpina       | juv. | 1  |          |
| cont'd   | C. pusilla            | juv. | 2  |          |
|          | C. mauri              | juv. | 1  | Erickson |
|          | Phalaropus fulicarius | juv. | 8  |          |
|          | Nyctea scandiaca      | ♂    | 1  |          |
|          | Calcarius lapponicus  | juv. | 12 |          |

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# Transect Summary

38

Barrow, North Slope Borough, Alaska

| TRANSECT                   | 6             | 7             | 8             | 9             | 10            | TOTAL         |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| DATE                       | 12 August     | 12 August     | 12 August     | 12 August     | 12 August     | 9 & 12 August |
| TIME                       | 0900<br>-0940 | 0940<br>-1025 | 1025<br>-1110 | 1110<br>-1150 | 1155<br>-1230 |               |
| ANAS ACUTA ♀               |               |               |               |               | 4             | 10            |
| CLANGULA HYEMALIS          |               |               |               |               |               |               |
| PLUVIALIS ad.              | 1             |               | 1             |               |               | 2             |
| DOMINICA juv.              | 1             |               | 4             |               |               | 8             |
| ARENARIA INTERPRES         |               |               |               |               |               |               |
| CALIDRIS MELANOTOS juv.    |               | 2             | 3             | 2             |               | 26            |
| CALIDRIS FUSCICOLLIS       |               |               |               |               |               |               |
| CALIDRIS BAIRDII           |               |               |               |               |               |               |
| CALIDRIS ALPINA ad. juv.   | 5<br>0        | 5<br>1        | 15<br>1       | 7<br>1        | 5<br>2        | 78<br>15      |
| CALIDRIS PUSILLA juv.      |               |               |               |               |               | 2             |
| CALIDRIS MAURI juv.        |               |               |               |               | 1             | 3             |
| LIMNODROMUS SCOLOPACEUS    |               |               |               |               |               | 1             |
| PHALAROPUS FULICARIUS juv. | 2             | 1             | 1             |               | 1             | 20            |
| STERCORARIUS PARASITICUS   |               |               |               |               |               |               |
| STERCORARIUS LONGICAUDUS   |               |               |               |               |               |               |
| CALCARIUS LAPPONICUS juv.  | 21            | 24            | 13            | 36            | 15            | 182           |
| PLECTROPHENAX NIVALIS juv. | 2             |               |               |               |               | 2             |
| NYCTEA SCANDIACA ♂         |               |               |               |               |               | 1             |





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# Transect Summary

39

## Barrow, North Slope Borough, Alaska

| TRANSECT                     | 1             | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | TOTAL<br>1-10 |
|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| DATE                         | 14<br>August  | 14<br>August  | 14<br>August  | 14<br>August  | 14<br>August  | 8/15/77       | 8/16/77       | 8/16/77       | 8/16/77       | 8/16/77       | 8/14 & 16/77  |
| TIME                         | 1030<br>-1110 | 0835<br>-0925 | 1115<br>-1205 | 0935<br>-1015 | 1225<br>-1305 | 0855<br>-0940 | 0940<br>-1025 | 1025<br>-1115 | 1115<br>-1200 | 1210<br>-1250 |               |
| ANAS ACUTA ♀                 |               |               |               |               | 2             |               |               |               |               |               | 2             |
| CLANGULA HYEMALIS            |               |               |               |               |               |               |               |               |               |               |               |
| PLUVIALIS ad.                | 0             | 0             |               | 0             | 0             | 0             | 0             | 0             |               |               | 0             |
| DOMINICA juv.                | 4             | 3             |               | 2             | 1             | 10            | 4             | 2             |               |               | 26            |
| ARENARIA INTERPRES           |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS MELANOTOS juv.      | 2             | 10            | 15            | 4             | 2             | 3             | 6             | 4             | 16            | 3             | 65            |
| CALIDRIS FUSCICOLLIS         |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS BAIRDII juv.        |               |               |               |               |               | 1             |               |               |               |               | 1             |
| CALIDRIS ALPINA ad.          | 6             | 29            | 15            | 5             | 23            | 23            | 24            | 7             |               |               | 132           |
| ALPINA juv.                  | 0             | 7             | 0             | 0             | 0             | 2             | 0             | 2             |               |               | 11            |
| CALIDRIS PUSILLA juv.        |               |               |               |               | 1             |               |               |               |               |               | 1             |
| CALIDRIS MAURI juv.          |               |               |               |               | 4             |               |               |               |               |               | 4             |
| LIMNODROMUS ad.              |               | 0             | 0             |               | 0             |               |               |               | 0             | 0             | 0             |
| SCOLOPACEUS juv.             |               | 5             | 11            |               | 3             |               |               |               | 5             | 1             | 25            |
| PHALAROPUS FULICARIUS juv.   |               | 3             | 7             |               | 10            |               |               | 1             | 1             |               | 22            |
| STERCORARIUS PARASITICUS     |               |               |               |               |               |               |               |               |               |               |               |
| STERCORARIUS LONGICAUDUS     |               |               |               |               |               |               |               |               |               |               |               |
| CALCARIUS LAPPONICUS ad. ♂   | 0             | 0             | 0             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 1             |
| ad. ♀                        | 0             | 0             | 0             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 1             |
| juv.                         | 38            | 24            | 26            | 10            | 7             | 15            | 33            | 7             | 22            | 4             | 186           |
| PLECTROPHENAX NIVALIS juv.   |               |               |               |               | 2             | 8             |               |               |               |               | 10            |
| MICROPALAMA HIMANTOPUS juv.  |               |               |               |               | 5             |               |               |               |               |               | 5             |
| TRYNGITES SUBRUFICOLLIS juv. |               |               |               |               |               |               | 2             |               |               |               | 2             |





## 40

## TOTAL

1-10





# Transect Summary

41

## Barrow, North Slope Borough, Alaska

| TRANSECT                         | 1             | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | TOTAL<br>1-10 |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| DATE                             | 8/24/77       | 8/24/77       | 8/24/77       | 8/24/77       | 8/24/77       | 8/25/77       | 8/25/77       | 8/25/77       | 8/25/77       | 8/25/77       | 8/24 & 25/77  |
| TIME                             | 1025<br>-1110 | 0850<br>-0925 | 1115<br>-1155 | 0935<br>-1010 | 1250<br>-1325 | 0845<br>-0920 | 0920<br>-1000 | 1000<br>-1040 | 1040<br>-1115 | 1115<br>-1150 |               |
| ANAS ACUTA ♀                     |               |               | 2             |               |               |               |               |               |               |               | 2             |
| CLANGULA HYEMALIS                |               |               |               |               |               |               |               |               |               |               |               |
| PLUVIALIS DOMINICA juv.          |               |               |               | 1             |               |               |               |               |               |               | 1             |
| ARENARIA INTERPRES               |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS MELANOTOS juv.          |               | 1             |               |               | 1             |               |               |               |               |               | 2             |
| CALIDRIS FUSCICOLLIS             |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS BAIRDII                 |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS ALPINA ad. juv. unknown | 13<br>1<br>2  | 0<br>1<br>0   |               | 6<br>3<br>0   | 2<br>1<br>0   |               | 24<br>0<br>0  | 1<br>0<br>0   | 4<br>0<br>0   | 5<br>1<br>0   | 55<br>8<br>2  |
| CALIDRIS PUSILLA                 |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS MAURI                   |               |               |               |               |               |               |               |               |               |               |               |
| LIMNODROMUS SCOLOPACEUS juv.     | 2             | 6             | 18            | 2             | 8             | 1             | 2             | 2             | 1             | 1             | 43            |
| PHALAROPUS FULICARIUS juv.       |               |               | 3             |               |               | 1             |               |               |               | 1             | 5             |
| STERCORARIUS PARASITICUS         |               |               |               |               |               |               |               |               |               |               |               |
| STERCORARIUS LONGICAUDUS         |               |               |               |               |               |               |               |               |               |               |               |
| CALCARIUS LAPPONICUS juv.        | 4             | 3             |               | 3             |               | 4             | 1             | 1             | 2             |               | 18            |
| PLECTROPHENAX NIVALIS            |               |               |               |               |               |               |               |               |               |               |               |
| NYCTEA SCANDIACA ♂               |               |               | 1             |               |               |               |               |               |               |               | 1             |





## Transect Summary

Barrow, North Slope Borough, Alaska

| TRANSECT                        | 1             | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | TOTAL<br>1-10 |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| DATE                            | 8/29/77       | 8/29/77       | 8/29/77       | 8/29/77       | 8/29/77       | 8/30/77       | 8/30/77       | 8/30/77       | 8/30/77       | 8/30/77       | 8/29-30/77    |
| TIME                            | 0940<br>-1010 | 0815<br>-0845 | 1015<br>-1050 | 0855<br>-0925 | 1105<br>-1140 | 0820<br>-0850 | 0850<br>-0930 | 0930<br>-1005 | 1005<br>-1035 | 1035<br>-1105 |               |
| ANAS<br>ACUTA                   |               |               |               |               |               |               |               |               |               |               |               |
| CLANGULA<br>HYEMALIS            |               |               |               |               |               |               |               |               |               |               |               |
| PLUVIALIS<br>DOMINICA juv.      |               |               |               |               |               |               | 4             |               |               | 1             | 5             |
| ARENARIA<br>INTERPRES           |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS<br>MELANOTOS juv.      |               |               |               |               | 1             |               |               |               |               |               | 1             |
| CALIDRIS<br>FUSCICOLLIS         |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS<br>BAIRDII             |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS<br>ALPINA              | 1             |               | 1             | 1             | 1             | 2             | 2             |               |               | 2             | 10            |
| CALIDRIS<br>PUSILLA             |               |               |               |               |               |               |               |               |               |               |               |
| CALIDRIS<br>MAURI               |               |               |               |               |               |               |               |               |               |               |               |
| LIMNODROMUS<br>SCOLOPACEUS juv. |               | 1             | 1             |               | 1             |               |               |               |               | 1             | 4             |
| PHALAROPUS<br>FULICARIUS juv.   |               | 1             | 2             |               | 1             |               |               |               |               |               | 4             |
| STERCORARIUS<br>PARASITICUS     |               |               |               |               |               |               |               |               |               |               |               |
| STERCORARIUS<br>LONGICAUDUS     |               |               |               |               |               |               |               |               |               |               |               |
| CALCARIUS<br>LAPPONICUS juv     | 1             | 2             | 1             | 2             |               |               | 3             |               | 14            | 1             | 24            |
| PLECTROPHENAX<br>NIVALIS juv.   |               |               |               |               |               | 1             |               |               |               |               | 1             |





1977

(1)

## Transect Summaries

Deadhorse, Alaska

1 August

# 11 0859-0926

*Phalaropus fulicarius* 1 j*Calcarus lapponicus* 2

3 huford

# 12 0933-1001

*Anas acuta* 4*Calcarus lapponicus* 8

2 huford

# 13 1005-1025

*Calidris alpina* 4 ad.

2 huford

# 14 1027-1049

*Calcarus lapponicus* 6

2 huford

# 15 1054-1118

1 ad

*Calidris alpina* 1 ♀*Calcarus lapponicus* 1

2 huford

# 16 1120-1142

*Calidris melanotos* 1 ♀*Calcarus lapponicus* 2

2 huford

# 1 1337-1351

*Calcarus lapponicus* 1

2 huford

# 2 1400-1425

*Anas acuta* 3*Calidris melanotos* 3 ♀*Phalaropus lobatus* 1 j*Calcarus lapponicus* 1

2 huford

# 3 1438-1458

*Pluvialis dominica* 1 ad.*Phalaropus lobatus* 2 j

2 huford

# 4 1505-1527

*Calcarus lapponicus* 1

2 huford

# 5 1545-1608

*Calcarus lapponicus* 3

2 huford

2 August

# 21 0845-0918

*Calidris melanotos* { 9 5  
7 6  
unk. 22*Calidris pusilla* 3 j*Limnodromus sclopaecus* 6 ad*Calcarus lapponicus* 3

2 huford

overcast →  
Weather: scattered clouds, warm and sunny, very slight breeze from W





# Transect Summaries

## Deadhorse, Alaska

2 August  
(cont.)

|      |                                |        |         |
|------|--------------------------------|--------|---------|
| # 22 | 0922-0945                      |        | Shuford |
|      | <i>Calidris melanotos</i>      | 1 unk. |         |
| # 23 | 1003-1029                      |        |         |
|      | <i>Anas acuta</i>              | 8      | Shuford |
|      | <i>Calidris melanotos</i>      | 1 ♀    |         |
|      | <i>E. alpina</i>               | 1 ad   |         |
|      | <i>Colaptes auratus</i>        | 1      |         |
| # 24 | 1032-1052                      |        | Shuford |
|      | No birds!                      |        |         |
| # 25 | 1055-1117                      |        | Shuford |
|      | <i>Colaptes auratus</i>        | 1      |         |
| # 26 | 1152-1218                      |        |         |
|      | <i>Pluvialis dominica</i>      | 2 ad.  | Shuford |
|      | <i>Arenaria interpres</i>      | 1 j.   |         |
|      | <i>Calidris pusilla</i>        | 1 j.   |         |
|      | <i>Phalaropus fulicarius</i>   | 2 j.   |         |
|      | <i>Colaptes auratus</i>        | 2      |         |
| # 32 | 1300-1321                      |        | Shuford |
|      | <i>Pluvialis dominica</i>      | 2 ad   |         |
|      | <i>Colaptes auratus</i>        | 2      |         |
| # 33 | 1327-1352                      |        | Shuford |
|      | <i>Calidris melanotos</i>      | 5 ♀♀   |         |
|      | <i>Limnodromus scotopaceus</i> | 3 ad.  |         |
| # 34 | 1358-1422                      |        | Shuford |
|      | <i>Pluvialis dominica</i>      | 5 ad   |         |
|      | <i>Calidris alpina</i>         | 2 ad.  |         |
| # 28 | 1448-1510                      |        | Shuford |
|      | <i>Anas acuta</i>              | 9      |         |
|      | <i>Colaptes auratus</i>        | 2      |         |
| # 29 | 1514-1539                      |        | Shuford |
|      | <i>Colaptes auratus</i>        | 3      |         |
| # 30 | 1549-1613                      |        | Shuford |
|      | <i>Colaptes auratus</i>        | 1      |         |
| # 31 | 1616-1640                      |        | Shuford |
|      | <i>Colaptes auratus</i>        | 2      |         |

Weather: Scattered clouds, very warm + sunny. Very slight breeze from the E. Lots of helicopter traffic over 21-25.





J.P. Myers  
1977

Transect summary

Produce Bay, Alaska

3 Aug

#17 0846 - 0908

Shuford

Calcarivus 1

#18 0910 - 0931

Shuford

Calcarivus 2

#19 0935 - 0956

Shuford

Calcarivus 3

#20 1000 - 1019

Shuford

Calidris melanotos ♀ 1

#6 1122 - 1130 ; 1154 - 1211

Shuford

Calcarivus lapponicus 2

#7 1218 - 1246

Shuford

Calcarivus lapponicus 13

#8 1310 - 1341

Shuford

Calcarivus lapponicus 3

#9 1345 - 1412

Shuford

Calcarivus lapponicus 5

#10 1429 - 1500

Shuford

Calcarivus lapponicus 3

#39 1905 - 1928

Shuford

NADA

#40 1931 - 1955

Shuford

Calidris melanotos 3  
Calcarivus lapponicus 5

#27 2008 - 2030

Shuford

Calcarivus lap 1

#38 2102 - 2125  
~~#38 2112 - 2135~~

Shuford

C. melanotos 1

\* Sterna paradisaea 2

Calcarivus 1





JPMyers  
1977

7

# Transect accounts

## Prudhoe Bay, Alaska

3 August  
cont'd

#37 2130-2150 NADA

Shuford

#35 2122-2235

Shuford

Anas acuta 1

Calcarvus lap 2

#36 2239-2303

Shuford

Calidris melanotos j 1

Calcarvus lap 1

4 August

#1 0949-1013

Shuford

Gavia archia 2

Calidris melanotos 4

Calcarvus lap 2

#2 1017-1047

Shuford

Anas acuta 1

C. melanotos ♀ 2

j 3

UK 4

Ph. lobatus ♂ 1

#3 1057-1119

Shuford

Anas acuta 6

Calidris melanotos 1

Calcarvus lap 3

#4 1125-1249

Shuford

Calcarvus lap 3

#5 1200AM 1300-1326

Shuford

Pluvialis dominica a 3

C. melanotos ♀ 3

j 10

#11 1453-1522

Shuford

C. melanotos j 3

UK 3

Ph. fulicaria j 1

Calcarvus 2

#12 1531-1534/1540-1553/1531-1534

Shuford

C. melanotos j 16

UK 6

Calcarvus lap 2

#13 1621-1644

Shuford

C. melanotos ♀ 2

UK 1

Calcarvus 1





## Transect accounts

Produce Bay, Alaska4 Aug  
(cont'd)

#14 1646 - 1706  
*Gavia stellata* 1  
~~Gavia~~ *Anas acuta* 1 2 Shuford  
*C. melanotos* ♂ 1  
 UK 8

---

#15 1713 - 1738

*C. melanotos* j 6  
 UK 2  
*C. alpina* a 1  
*Calcaris* 2

---

#16 1745-1810 NADA

2 Shuford

2 Shuford

5 Aug

#32 0955 - 1017

2 Shuford

*Calcaris lep* 1#33 *Calcaris lep* 2 1022 - 1044

2 Shuford

#34 1047 - 1115

2 Shuford

~~*Calcaris lep*~~ *Polidoris melanotos* 1

#28 1143 - 1204

2 Shuford

*Calcaris lep* 5

#29 1209 - 1231

2 Shuford

*Calcaris lep* 3

#30 1235 - 1256

2 Shuford

*Calcaris lep* 4

#31 1302 - 1324

2 Shuford

*Calcaris lep* 2

#26 1419 - 1442

*Anas acuta* 12

2 Shuford

*C. melanotos* ♂ 3  
 j 4  
 u 2

#21 1513 - 1537

*Anas acuta* 6

2 Shuford

*C. melanotos* j 2  
 u 2





## TRANSECT ACCOUNTS

Prudhoe Bay, Alaska5 Aug  
(cont'd)

# 22 1540 - 1601

C. melanotos 1

Shuford

# 23 1610 - 1647

C. melanotos      ♀ 7  
                             j 2

Shuford

~~C. t.~~  
Calcarivus lap 1

# 24 1653 - 1715

C. melanotos      j 2

C. alpinus                      1

C. pusilla                      j 4

Ph. lobatus                      j 1

Ph. fulvipes                      j 1

Shuford

# 25 1719 - 1741

Calcarivus lap 1

Shuford





# Transect ~~800~~ Accounts

## Prudhoe Bay, Alaska

6 August

|     |                                |            |           |            |
|-----|--------------------------------|------------|-----------|------------|
| #39 | <i>Anas platyrhynchos</i>      | 4          | 0735-0800 | Myers      |
|     | <i>Pluvialis dominica</i>      | 6          |           |            |
|     | <i>Calidris melanotos</i>      | j 1        |           |            |
|     | <i>Tryngites subruficollis</i> | ♀ 1 - w/c  |           |            |
|     | <i>Calcarius lap</i>           | 15         |           |            |
| #40 | <i>Calcarius lap</i>           | 16         | 0802-0820 | Myers      |
| #35 | <i>Pluvialis dominica</i>      | a 4<br>j 2 | 0855-0910 | Myers      |
|     | <i>C. borealis</i>             | j 1        |           |            |
|     | <i>Arremonia interpres</i>     | j 1        |           |            |
|     | <i>Calcarius lap</i>           | 12         |           |            |
| #36 | <i>Tryngites subruficollis</i> | j 2        | 0912-0926 | Myers      |
|     | <i>Calcarius lap</i>           | 14         |           |            |
| #37 | <i>Tryngites subruficollis</i> | j 8        | 1137-1153 | S. Sanford |
|     | <i>Calcarius lap</i>           | 15         |           |            |
| #38 | <i>Anas platyrhynchos</i>      | 3          | 0841-0913 | S. Sanford |
|     | <i>Calidris melanotos</i>      | j 1        |           |            |
|     | <i>Tryngites subruficollis</i> | j 3        |           |            |
|     | <i>Calcarius lap</i>           | 11         |           |            |
| #27 | NADA                           |            | 0752-0816 | S. Sanford |
| #6  | <i>Pluvialis dominica</i>      | a 1        | 1045-1105 | Myers      |
|     | <i>C. alpina</i>               | a 1<br>j 2 |           |            |
|     | <i>Calcarius lap</i>           | 6          |           |            |
| #7  | <i>Calcarius lap</i>           | 2          | 1109-1130 | Myers      |
| #8  | <i>Tryngites subruficollis</i> | ♀ 1 - w/c  | 1132-1153 | Myers      |
| #9  | <i>C. melanotos</i>            | j 1        | 1155-1215 | Myers      |
|     | <i>Calcarius</i>               | 3          |           |            |
| #10 | <i>Pluvialis squatarola</i>    | ♂ 1        | 1230-1253 | Myers      |
|     | <i>Calidris melanotos</i>      | ♀ 1<br>j 4 |           |            |
|     | <i>Calcarius lap</i>           | 20         |           |            |
| #17 | <i>Calcarius lap</i>           | 3          | 1112-1129 | S. Sanford |
| #18 | <i>Calcarius lap</i>           | 5          | 1137-1153 | S. Sanford |
| #19 | <i>Calcarius lap</i>           | 1          | 1156-1213 | S. Sanford |
| #20 | NADA                           |            | 1216-1233 | S. Sanford |





# Transect Summary

Prudhoe, North Slope Borough, Alaska

TOTAL

| TRANSECT                 | 21                  | 22                  | 23                   | 24                  | 25                  | 26                   | 27                  | 39                  | 40                  | 28                  |  |
|--------------------------|---------------------|---------------------|----------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|--|
| DATE                     | 8/11/77             | 8/11/77             | 8/11/77              | 8/11/77             | 8/11/77             | 8/11/77              | 8/11/77             | 8/11/77             | 8/11/77             | 8/12/77             |  |
| TIME                     | 1058 -<br>1128 (-5) | 1134 -<br>1201 (-5) | 1218 -<br>1252 (-10) | 1303 -<br>1333 (-5) | 1336 -<br>1406 (-5) | 1559 -<br>1641 (-10) | 1835 -<br>1903 (-5) | 1727 -<br>1756 (-5) | 1758 -<br>1824 (-5) | 0725 -<br>0753 (-5) |  |
| ANAS ACUTA               |                     | 3                   | 2                    |                     |                     | 12                   |                     |                     |                     |                     |  |
| CLANGULA HYEMALIS        |                     |                     |                      |                     |                     | 19                   |                     |                     |                     |                     |  |
| PLUVIALIS DOMINICA       |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| ARENARIA INTERPRES       |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| CALIDRIS MELANOTOS       | ♀ 1<br>♂ 3          |                     | ♂ 3                  | ♀ 1<br>♂ 6          |                     | ♂ 3                  | ♂ 1                 |                     | ♂ 1                 |                     |  |
| CALIDRIS FUSCICOLLIS     |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| CALIDRIS BAIRDII         |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| CALIDRIS ALPINA          |                     |                     |                      |                     |                     | 1 ad.                |                     |                     |                     |                     |  |
| CALIDRIS PUSILLA         |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| CALIDRIS MAURI           |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| LIMNODROMUS SCOLOPACEUS  |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| PHALAROPUS FULICARIUS    |                     |                     | ♂ 1                  |                     |                     |                      |                     |                     |                     |                     |  |
| STERCORARIUS PARASITICUS |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| STERCORARIUS LONGICAUDUS |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| CALCARIUS LAPPONICUS     | 2                   |                     |                      |                     | 2                   | 2                    |                     | 6                   | 3                   | 2                   |  |
| PLECTROPHENAX NIVALIS    |                     |                     |                      |                     |                     |                      |                     |                     |                     |                     |  |
| Gavia arctica            |                     |                     | 2                    |                     |                     |                      |                     |                     |                     |                     |  |
| Somateria spectabilis    |                     |                     |                      |                     |                     | 6                    |                     |                     |                     |                     |  |











# Transect Summary

Prudhoe North Slope Borough, Alaska

TOTAL

| TRANSECT                 | 1                      | 2              | 3              | 4              | 5              | 11                     | 12                     | 13                     | 14                     | 15                     |  |
|--------------------------|------------------------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|------------------------|------------------------|--|
| DATE 1977                | 8/13                   | 8/13           | 8/13           | 8/13           | 8/13           | 8/14                   | 8/14                   | 8/14                   | 8/14                   | 8/14                   |  |
| TIME                     | 1247 →<br>1322<br>(-5) | 1326<br>→ 1402 | 1410<br>→ 1432 | 1442<br>→ 1504 | 1515<br>→ 1540 | 1025 →<br>1153<br>(-5) | 1105 →<br>1144<br>(-5) | 1153 →<br>1121<br>(-5) | 1230 →<br>1302<br>(-5) | 1321<br>→ 1341<br>(-5) |  |
| ANAS ACUTA               |                        | 1              | 6              |                | 1              |                        |                        |                        |                        |                        |  |
| CLANGULA HYEMALIS        |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| PLUVIALIS DOMINICA       |                        |                |                |                |                |                        |                        | j 1                    | j 1                    |                        |  |
| ARENARIA INTERPRES       |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALIDRIS MELANOTOS       | j 3                    | j 15           |                |                |                | j 7                    | 2                      | j 9                    | j 16                   | j 3                    |  |
| CALIDRIS FUSCICOLLIS     |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALIDRIS BAIRDII         |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALIDRIS ALPINA          |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALIDRIS PUSILLA         |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALIDRIS MAURI           |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| LIMNODROMUS SCOLOPACEUS  | j 1                    |                |                |                |                |                        |                        |                        |                        |                        |  |
| PHALAROPUS FULICARIUS    |                        | j 1            |                |                |                |                        |                        |                        |                        | j 1                    |  |
| STERCORARIUS PARASITICUS |                        | 2              |                |                |                |                        |                        |                        |                        |                        |  |
| STERCORARIUS LONGICAUDUS |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| CALCARIUS LAPPONICUS     |                        | 1              |                | 1              | 1              | 1                      |                        | 4                      | 1                      |                        |  |
| PLECTROPHENAX NIVALIS    |                        |                |                |                |                |                        |                        |                        |                        |                        |  |
| Anas platyrhynchos       |                        |                |                |                | 6              |                        |                        |                        |                        |                        |  |
| Calidris himantopus      |                        |                | j 1            |                |                |                        |                        |                        |                        |                        |  |











# Transect Summary

MYERS  
1977

4 AUGUST -  
13 AUGUST  
TRANSECT

Atkasook, Meade River, North Slope Borough, Alaska

TOTAL

| DATE                                                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
|---------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------------|
| TIME                                                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| GAVIA                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| ARCTICA                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| ANAS                                                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| ACUTA                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 23                      |
| <del>CLANGULA</del> ANAS<br><del>HYEMALIS</del> PLATYRHYNCHOS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2                       |
| LAGOPUS                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6                       |
| LAGOPUS                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5                       |
| LAGOPUS                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10                      |
| MUTUS                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 51                      |
| PLUVIALIS                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| DOMINICA                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6                       |
| PLUVIALIS                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9                       |
| SQUATAROLA                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7                       |
| ARENARIA                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| INTERPRES                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| CALIDRIS                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7                       |
| MELANOTOS                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 41                      |
| CALIDRIS                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 18                      |
| ALPINA                                                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 41                      |
| CALIDRIS TRYINGITB<br>PUSILLA SUBRUFICOLLIS                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1                       |
| CALIDRIS<br>MAURI                                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| LIMNODROMUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5                       |
| SCULOPACEUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6                       |
| PHALAROPUS                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| FULICARIUS                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2                       |
| PHALAROPUS                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| LOBATUS                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2                       |
| STERCORARIUS                                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| PARASITICUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1                       |
| STERCORARIUS                                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| LONGICAUDUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1                       |
| LARUS                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| HYPERBOREUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| STERNA                                                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| PARADISAEA                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3                       |
| MOTACILLA                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| FLAVA                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3                       |
| ACANTHUS                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| SP.                                                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9                       |
| PASSERCULUS                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| SANDWICHENSIS                                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8                       |
| CALCARIUS                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                         |
| LAPPONICUS                                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | a 58<br>j 106<br>UNK 47 |





10 Day Period 14 August  $\rightarrow$  23 August

TOTAL

[illegible]





MYERS  
1977

10 DAY  
SUMMARY

Transect Summary

Atkasook, Meade River, North Slope Borough, Alaska

TOTAL

TRANSECT

DATE  
24 AUG - 2 SEPT

TIME

GAVIA

ARCTICA somateria ligchellii

ANAS acuta

~~ACCOMA~~ ANAS crecca

~~EXANGULA~~ ANSER albifrons

HYEMALIS Anas platyrhynchos

FALCO RUSTICUS

LAGOPUS

LAGOPUS

LAGOPUS

MUTUS

PLUVIALIS

DOMINICA

PLUVIALIS

SQUATAROLA

ARENARIA

INTERPRES

CALIDRIS

MELANOTOS

CALIDRIS

ALPINA

CALIDRIS

PUSILLA

CALIDRIS

MAURI

LIMNODROMUS

SCOLOPACEUS

PHALAROPUS

FULICARIUS

PHALAROPUS

LOBATUS

STERCORARIUS

PARASITICUS

STERCORARIUS

LONGICAUDUS

LARUS

HYPERBOREUS

STERNA

PARADISAEA

MOTACILLA

FLAVA

ACANTHIS

SP.

PASSERCULUS

SANDWICHENSIS

ALCARIUS

LAPPONICUS

3

3

4

9

1

1

92

15

85

0

28  
1

45

1

2

2

67





JP Myers  
1977

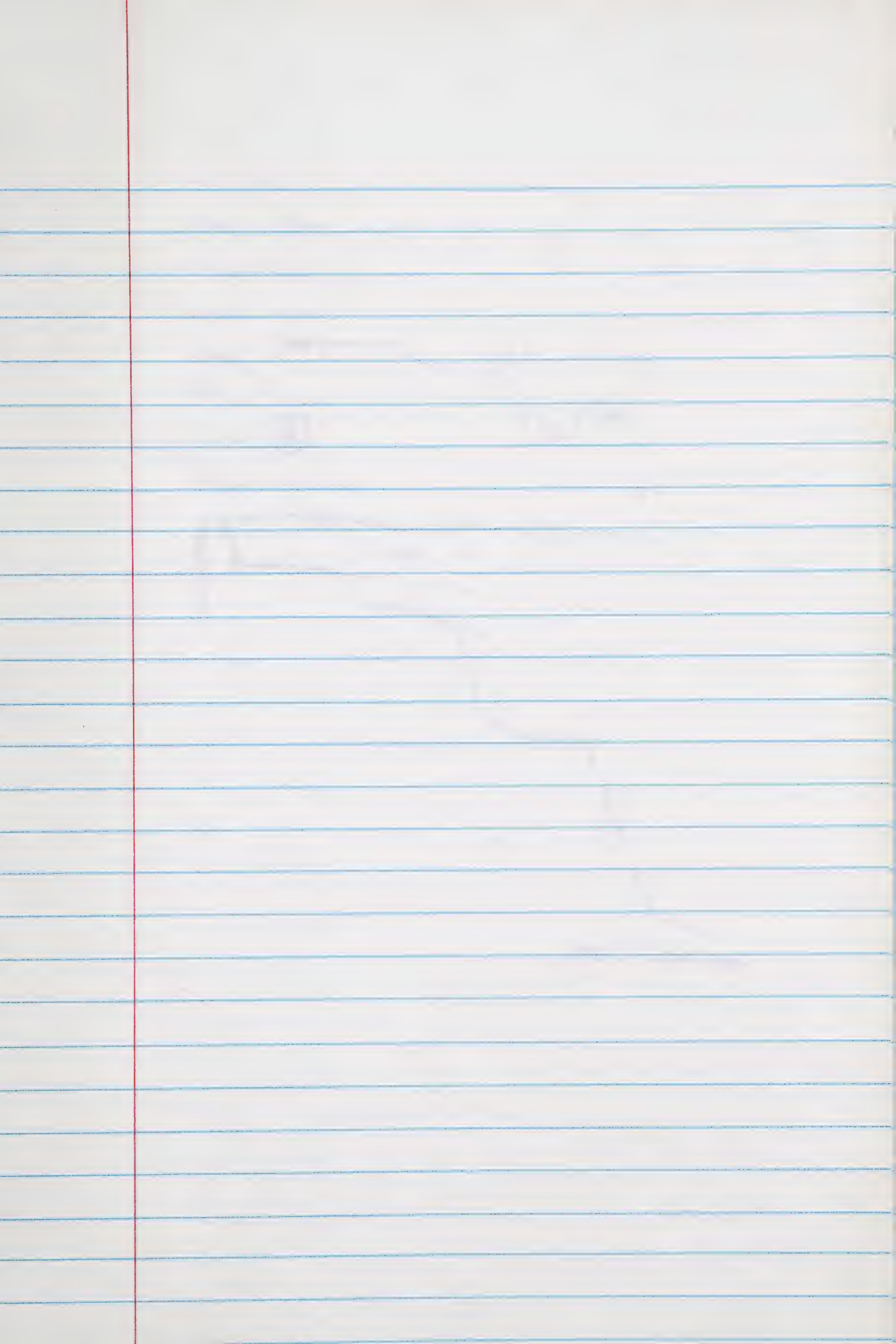
# Band resighting

## Barrow, Alaska

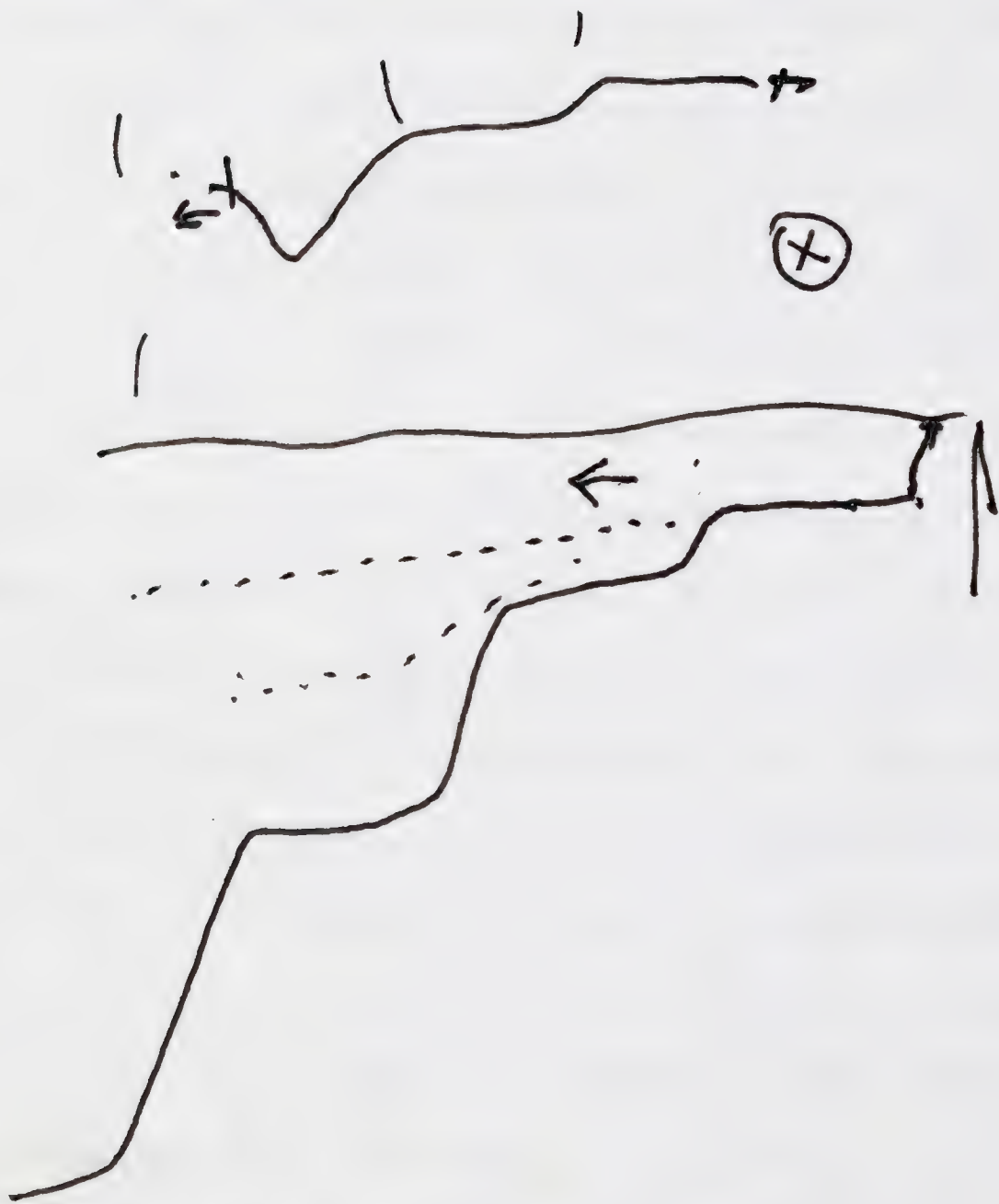
|         |                |                     |                         |                                                                                                     |
|---------|----------------|---------------------|-------------------------|-----------------------------------------------------------------------------------------------------|
| 15 June | C. pusilla     | both creek by falls | rb:r                    |                                                                                                     |
| 14 June | Ph. fulicarius | ♀ GRID 4            | R13:RM (6,1)            | w/♂                                                                                                 |
| 15 June | Ph. fulicarius | ♀ TRAN 3 - GRID 4   | (4,10)                  | alone [m:r] on tibia                                                                                |
| 14 June | Ph. fulicarius | ♀ GRID 4            | <del>RB</del> -:R (8,5) | at 1900.                                                                                            |
| 14 June | Ph. fulicarius | ♀ GRID 4            | Y:R (2,3)               | ~1700                                                                                               |
| 14 June | Ph. fulicarius | ♀ GRID 4            | B:R (2,3)               | ~1700                                                                                               |
| 17 June | Ph. fulicarius | ♀ GRID 4            | Y:B 2,8                 | 1035 alone                                                                                          |
|         | "              | ♀ "                 | -:B 6,7                 | 0820 w/♂                                                                                            |
|         | "              | ♀ "                 | R:B 1,5                 | 1400 - w/other ♂                                                                                    |
|         | "              | ♀ "                 | G:Y 1,4                 | 11:10 w/♂ -:r                                                                                       |
|         | "              | ♂ "                 | -:r 1,4                 | 11:10 w/♀ G:Y                                                                                       |
|         | "              | ♀ "                 | w:b 3,2                 | 10:20 alone                                                                                         |
|         | "              | ♀ "                 | r:r 8,5                 | 10:30 alone                                                                                         |
| 13 July | "              | ♂ GRID 1            | YM:YB                   | <sup>turquoise, a light blue w/ greenish hue. faded</sup> GRID 1 (4,9) 0600 acting as if w/children |
| 17 July | "              | ♂ Grid 1            | YM:YB                   | (4,6)                                                                                               |







Take #1 can prove false





*Artemisia artemisia*

*Astragalus umbellatus*

*Astragalus alpinus*

*Oxytropis nigrescens*

*Sedum*

*Parnassia nodicaulis*

*Caltha palustris*

*Polygonum viviparum*

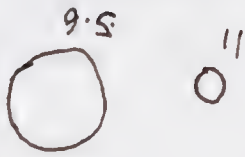
*Pedicularis caespitosa*, *Kancii*, *langsdorffii*, *sudetica*

200W  
 NIMH  
 Oilfield Service Inc  
 4706 Harding  
 Beaumont

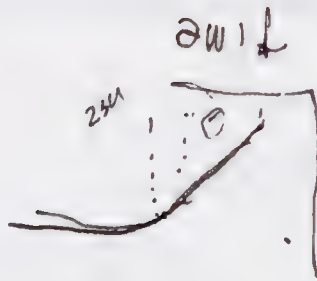
995073

stop  
 ↓  
 shutter  
 ↓  
 intensity x time  
 ↓  
 □

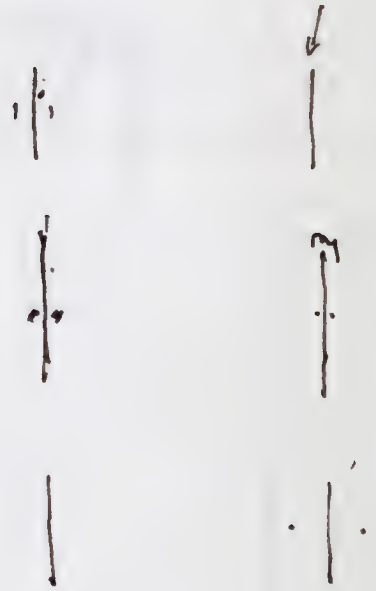
light given  
 light let through



1



2



20



0

0



Adam Linn

Box 64

Barter Is Ak 99747

Manager of village corp at Barter

interested in bird work + possible funding.

average 100/person





Myers, J. P.

1977

Alaska

Vegetation





## Salix

S. pulchra - long brown persistent <sup>narrowly linear</sup> stipules, dead growth, ~~may be leaves~~ <sup>leaves</sup> highly variable in form

S. reticulata

S. arctica - glabrescent leaves, broad, blunt + dark bracts w/ long white hairs;  
leaf color lighter below, trailing branches; no long persistent stipules, not densely  
pubescent, but some reddish

S. lanata - young twigs densely pubescent; capsules almost glabrous, leaves glabrous

S. glauca - young twigs densely pubescent; villous rachis; bracts densely tomentose  
leaves grayish pubescent on both sides. ~~subsp.~~ subsp. is glabrous leaves.

S. rotundifolia - somewhat pubescent shoots, lateral veins raised on both sides  
bracts ovate, yellowish brown - glabrous <sup>or</sup> w/ few long hairs. capsules glabrous

S. phlebophylla - leaves somewhat pubescent when young but glabrous when young  
leaves lanceolate. old skeletalized leaves prominent  
bracts black w/ long white hairs capsules pubescent

S. alaxensis - young twigs woolly. leaves w/ dense white felt beneath





## Pedicularis

P. sudetica albolabiata - purple, ~~whorled~~ twisting galea, long slender teeth on galea at apex  
basal bracts with long lobes, middle bracts w/ lobes glabrous filaments

P. Langsdorffii arctica - ~~ma~~

purple, galea not strongly twisting, not densely woolly, teeth at right angles to mouth of galea, leaves larger than flower, lower bracts + upper bracts similar to leaves  
2 pubescent filaments out of 4

P. Kaneii woolly loosewort

P. ~~capitata~~ capitata - yellow loosewort

Lagotis glauca minor - small blue ~~loosewort~~ figwort





Webber/Koussakov

- Sand dunes
- no longer a unit
    - ✓ { Dryas integrifolia - Elymus mollis DU-4, DU7 DU6 DU1 DU2 DU3
    - ✓ { Salix lanata - Salix glauca - Salix pulchra DU9 DU10
    - ✓ { Dryas integrifolia - Archostaphylos ~~DUF~~ DU5 DU11 DU12?
    - ✓ { Cassiope tetragona stabilized dunes DU8
    - ✓ { Salix pulchra - Dryas integrifolia, Carex drybank edge DU3 ??
6. Dry ridge
7. snow patch
- ✓ { Aleatoria Diapensia Dryas - dry ridge + lichen tundra DS1 LR 1-7
  - ✓ { Cassiope Boykinia Ranunculus - snow patch SPI-13
8. upland tundra
9. tundra
- ✓ { Racomitrum - Carex bigelowii - dry tundra
  - ✓ { Europhorum vaginatum, Ledum, Rubus, Carex b., Vaccinium - UPLAND TUNDRA
10. wet tundra trough
11. polygon centers
12. polygon rims
- ✓ { Carex aquatilis - Salix pulchra - wet tundra trough
  - ✓ { C. a. - polygon centers →  $\begin{matrix} P_L & P_H \\ Ca; Ut; Ca & Ut; Ca \\ 16; 9; 16 & 9; 16 \end{matrix}$
  - ✓ { C. aquatilis - Salix pulchra - polygon rims  $\begin{matrix} P_L \\ Ca; Cosp; Ca \\ 16; 15; 16 \end{matrix}$
13. Sphagnum - Ledum - Betula - Salix pulchra - Rubus wet tundra
14. Cassiope Cetraria cucullata Aleatoria - wet lichen tundra
15. Carex Salix pulchra Pleurosium - moist lake margin + meadow
16. Carex aquatilis string bogs
17. Carex aquatilis - Salix pulchra - Sphagnum string bogs
18. Salix lanata - Salix alaxensis river bank
19. Salix pulchra Petusilla frigidos - Pyrola streamside shrubs





Webber/  
Kumar

20. Calamagrostis - Carex stream

21. Arctophila fulva - shallow water





*Carex aquatilis* - upper flowers staminate, lower pistillate, multiple flowers; upright; culms thick, smooth, rounded  
scales brown w/ pale midvein, spike peduncled

*C. atrofusca*

apical spike staminate, caespitose. See *C. misandra*. leaves 3-4 mm wide, wider than P.m.  
lateral spikes <sup>2-3</sup> on drooping peduncles. scales ~~are~~ ovate, perigynia broader than scales - long beaked, translucent margin  
lowest bract short, bristle like with brown sheath

*C. bigelowii*

spike peduncled SCABROUS CULM CULM sharply triangular  
perigynia short beaked GESTALT - silver sword Terminal spike staminate, lateral thick, pistillate  
lowest bract sheath like Stout runner w/ dark reddish brown sheaths  
shorter than inflorescence  
SCALES BLACK. BLACK AURICLES AT BASE OF LOWEST BRAC

*marina = amblyorhynchos*

*C. maritima*

*C. mumbraeana*

terminal spike staminate often w/ smaller staminate spikes at base. lateral spikes pistillate, sterile, or short, ~~sterile~~  
lowest bract LEAF LIKE, shorter than inflorescence

*C. misandra*

caespitose, glabrous culm  
leaves usually curled, conspicuous dried leaves at base  
leaves much shorter than culm  
beak on perigynia much longer than scale

lowest bract w/ long sheath + short blade staminate  
terminal spike drooping. ~~peristylate~~ flowers above on terminal spike  
pistillate laterally  
scale ovate. perigynia LONGER than scales

*C. rariflora*

spike on long peduncle Terminal spike staminate, lateral 2-3 pistillate  
light midvein on bract DROOPING  
bracts short, dark. scales purplish black, broadly ovate, obtuse

Culm obviously triangular  
perigynia light colored, elliptical w/ inconspicuous beak

*C. rotundata*

grey green w/ ruiness for into and  
culms stiff smooth  
long bract but shorter than flower, lowest often divaricate or reflexed

1 staminate spike, rarely 2. usually 2 pistillate spikes, short, round  
SESSILE  
scales blunt

*C. rupestris*

SINGLE Terminal spike. culms from short creeping rhizome  
\*curly leaves\*

DISEXUAL SPIKE, with several staminate flowers at tip. scales persistent, broad. perigynia erect yellowish brown

*C. saxatilis*

long sweeping rhizomes. yellowish green leaves  
culm slender often CURVED

APICAL 1-2 spikes staminate, lateral 1-2 pistillate arising on long capillary peduncles DROOPING  
scales acute, dark brown  
perigynia broader + longer than scales, elliptical, reddish brown. abruptly contract to short ~~emarginate~~ beak

*C. scirpoides*

culms in dense rows front shoot, dark brown scaly rhizome. leaves flat, very acute - SCABROUS, about 3 mm broad  
SINGLE TERMINAL SPIKE  
ANTHERS CONSPICUOUS DURING FLOWERING. UNISEXUAL SPIKE

*C. subspatheana*

loosely caespitose with thin yellowish green runners. culm curved, glabrous  
2-4 spikes, upper 10 mm long. lateral pistillate - scale or short stipate. few flowered

lowest bract broad at base, long as INFLORESCENCE  
coastal salt marsh

*C. ussuriensis*

*C. virginica*





SP Myers  
1977

# PRUDHOE BAY

## Wet vegetation units

M1

Carex raifflova, Carex aq., Carex rotundata, Pedicularis

low moist site - Pad F

M2

Carex aq, Erioph. ang, Pedicularis, Drepanocladus -  
no fructose lichen, early standing H<sub>2</sub>O

low moist, LCPC lake margins  
froughe

M3

Carex aq, Dupontia, Salix oval, Drepanocladus, Calliergon

low moist in Sag sand dunes area

M4

Carex aq, Carex saxatilis, Scirpidium ~~scop~~ scirpioides

low wet sites, LCPC, lake margins

M5

Carex aq, Salix rotund, Dupontia,

moist creek banks

M6

Juncus arcticus, Salix oval

moist sandy river bars

M7

Equisetum, Alopecurus, Arctagrostis, Salix oval, Juncus cart.

moist along rivers

M8

Dupontia, Carex aq, Saxifraga cernua, Eriophorum ang.

polygm boughs in coastal area

M9

Carex ursina, Carex subspathacea, Puccinellia <sup>phryganodes</sup> ~~phryganodes~~

salt water estuaries, low coastal

## Emergent

E1

Carex

to 30cm

E2

Arctophila

to 100 cm

E3

Scirpidium scirpioides

deep near Arco camp

E4

Hippurus, Calliergon, Caltha, Arctophila

tundra streams

M2 vs U4: U4 has Dryas. M2 may have Dryas on lumps but none on the low microsites.





JP Myers  
1977

## PRUDHOE BAY

MESIC VEG units

- |     |                                                                                                                                                                                          |                                                             |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| U1  | <u>Dryas</u> , <u>Carex aq</u> , <u>Sal ret.</u> , <u>Carex misandra</u> , <u>Distichium</u> ,<br><u>Ochrolechia frigida</u>                                                             | Polygon rims + aligned hummocks<br>pad F                    |
| U2  | <u>Dryas</u> [ <u>Erioph. vag</u> ], <u>Carex bigelowii</u> , <u>Tomenthypnum</u> , <u>Distichium</u> ,<br><u>Thamnolia</u>                                                              | well drained upland                                         |
| U3  | <u>Dryas</u> , <u>Eriophorum ang.</u> , <u>Carex bigelowii</u> , <u>Carex aq</u> , <u>Tomenthypnum</u> ,<br><u>Thamnolia</u> , <u>Cetraria</u>                                           | well drained uplands,<br>polygon rims,<br>alligned hummocks |
| U4  | <u>Carex aquatilis</u> , <u>Eriophorum ang.</u> , <u>Dryas</u> , <u>Salix r.</u> , <u>Salix arctica</u><br><u>Tomenthypnum</u> - <del>not</del> no fruticose lichens, more Salix than U3 | moisten upland sites                                        |
| U5  | <u>Dryas</u> , <u>Salix ret.</u> , <u>Astragalus</u> , <u>Cetraria</u>                                                                                                                   | well drained early thawing snowbanks                        |
| U6  | <u>Dryas</u> , <u>Cassiope</u> <u>Carex scirpoides</u> , <u>Salix rotundifolia</u> ,<br><u>Distichium</u>                                                                                | well drained snow banks                                     |
| U7  | <u>Salix rotun.</u> , <u>Equisetum</u> , <u>Salix ret.</u> , <u>Eriophorum ang.</u> , <u>Carex aq.</u>                                                                                   | stream banks <sup>Late thawing</sup> snowbanks              |
| U8  | <u>Salix lanata</u> , <u>Carex aquatilis</u> , <u>Salix ovalifolia</u> ,<br><u>Eriophorum ang.</u>                                                                                       | stream banks                                                |
| U9  | abundance of <u>Dryas</u> , also <u>Erioph. ang.</u> , <u>Sax opp.</u> , <u>Salix rotun.</u>                                                                                             | gently sloping upland stream banks<br>swept by spring flood |
| U10 | <u>Dryas</u> , <u>Poa</u> , <u>Festuca</u> , <u>Astragalus</u> , <u>Saxifraga</u> , <u>Ranunculus</u>                                                                                    | Pingo tops                                                  |
| U11 | <u>Festuca</u> , <u>Poa</u> , <u>Potentilla</u> , <u>Papaver</u> ,                                                                                                                       | bird mounds, animal den                                     |
| U12 | <u>Carex aq.</u> , <u>Salix p.</u> , <u>Dicranum</u> , <u>Polytrichum</u>                                                                                                                | mesic coastal sites                                         |





JPW 1975

PRUDHILL BAY

Barren Vegetation

- |     |                                                                                                                                           |                                        |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| B1  | <u>Dryas</u> , <u>Oxytropis</u> , <u>Carex rigida</u>                                                                                     | Pingos, elevated ridges                |
| B2  | <u>Dryas</u> , <u>Sax. opp.</u> , <u>Sal. rot.</u>                                                                                        | Pingos, HCP, drained lake rims         |
| B3  | <u>Dryas</u> , <u>Erioph. ang.</u> , <u>Sax. opp.</u><br><u>thamnia</u>                                                                   | Frost mounds                           |
| B4  | <u>Epilobium lat.</u> , <u>Antennaria</u> ,<br><u>Trisetum</u> , <u>Polygonum</u> , <u>Aucnoma</u>                                        | Gravel bars of stream channels         |
| B5  | <u>Dryas</u> , <u>Sax. opp.</u> , <u>Sal. oval</u> , <u>Aucnoma</u> , <u>Distichium</u>                                                   | Sandy river terraces, stabilized dunes |
| B6  | <u>Dryas</u> , <u>Sal. rot.</u> , <u>A. stolonifera</u> , <u>Carex scirpoides</u> , <u>Silene</u><br><u>acutoloba</u> , <u>Distichium</u> | Sandy ice scoured creek banks          |
| B7  | <u>Epilobium</u> , <u>Brya</u> , <u>Polygonum</u> , <u>Salix arct.</u> , <u>Sal. retz.</u> , <u>Poa</u>                                   | Actively slumping river bluffs         |
| B8  |                                                                                                                                           |                                        |
| B9  |                                                                                                                                           |                                        |
| B10 |                                                                                                                                           |                                        |
| B11 |                                                                                                                                           |                                        |
| B12 |                                                                                                                                           |                                        |





JPM Myers 1977

## MAJOR PRUDHOE VEGETATION CLASSES

26 June

Barren tundra - B1 B2 dominant in higher microsites. U3 U4 M2 in lower

Pingo complex - B1 in exposed sites. a 10( tops) U5, U6, U7 in snow accumulation areas

Frost boil complex - B3

Upland tundra - U2 U3 U4

Upland tundra complex - U3 U4 in higher microsites such as FCP tops. M2 in between hummocks and in troughs

Snowbank complex - U5 or U6 on upper reaches of snowbank usually on steeply sloping terrain. U7 at base

Lowland tundra - moist M2 in low; U3 or U4 in higher microsites

Lowland tundra - wet M4 in low, U4 or U3 in higher

Emergent - shallow E1

Emergent - deep E2

Open water

Tundra Stream M5 along moist stream banks; B4 on gravel bars, B6 U9 on barren terraces. E1, E2, E4 in stream waters





JP Myers +  
1977

Vegetation notes: River bar associations

Atkasook on Meade River, N. Star Borough, Alaska

26 Aug

Today sampled the only few patches of river bar we ~~are~~ have on transects (T7). I doubt that we have ever recorded birds within. Much of the association appears to be the Salix alaxensis understory trailing out onto a bar - then it is heavy with Equisetum + there are scattered S. glauca and S. alaxensis between rocks. But the presence of a thick stand of Dupontia fischerii, considerable Carex aquatilis, thick patches of Carex mentosaucea, and a monoparous Poa (arctica?). also Juncus arcticus and Eriophorum ruscicul. + Wilhelmsia. I deduced all of these plants to lie in Vera K's RB3, what she calls Eriophorum - Wilhelmsia.





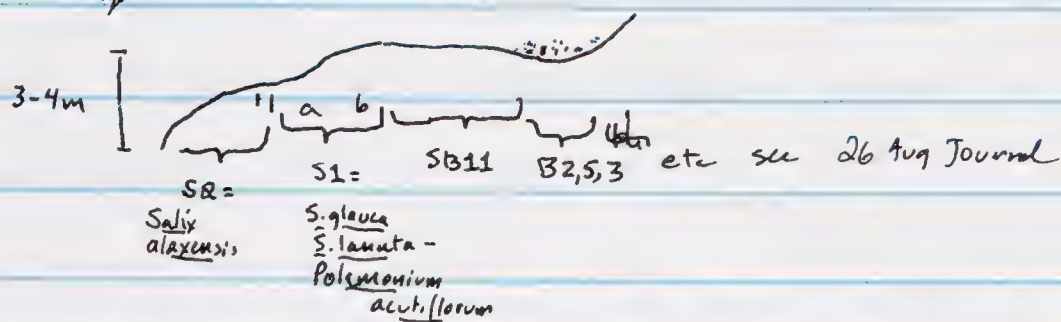
JP Myers  
1977

Vegetation notes: Shrub association S1  
Salix glauca / Salix lanata -  
Polemonium acutiflorum

Mende River, N. Slope Borough, Alaska

26 August

Transect 7 offers a unique habitat to the transect system, large shrub associations up to 1.8 meters high! of ~~these~~ the 2 major ones (see also Salix alaxensis), S1 is higher along the river's edge:



It is a mixture of Salix glauca, Salix lanata as shrub species, very rarely with an alaxensis intruding. Understory: Polemonium acutiflorum (in lower area toward S2 ~~3~~; when it is present S1 is called S1a as opposed to S1b (see next), Lupinus arcticus (when present - with Arctostaphylos = S1b) or, Arctostaphylos rubus, an Oxyria, and Oryza. Arctostaphylos becomes very abundant in the upper, dryer end of S1. Lupinus appears to replace Polemonium, or rather the Lupinus - Arctostaphylos - Oryza understory became more apparent and prominent as the willows (glauca and lanata) became prostrate. ~~The~~ Salix reticulata also began to figure as an understory species. Vegetation heights in S1a are higher than S1b, with the willows in S1a reaching 1 m occasionally. S1b can be almost prostrate. On occasion the similarity between S1b, in its most depauperate form, and dune Salix glauca w/ Arctostaphylos, was disturbing.





J.P. Myers  
1977

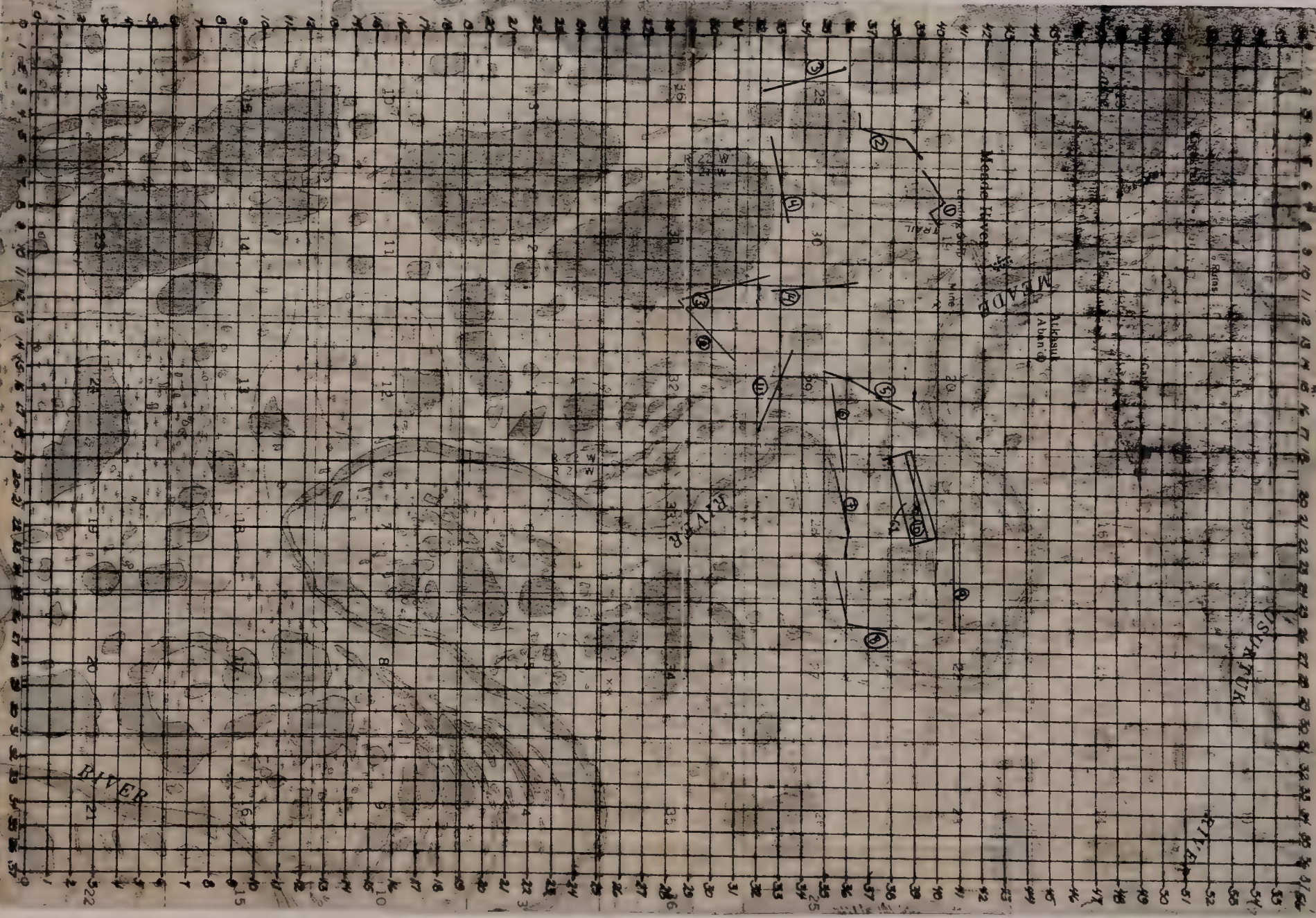
Vegetation - S2 Salix alayensis - Equisetum - Polygonum

Meade River, N. Slope Borough, Alaska

26 August - amazing. veg heights ~~a~~ to 180 cm! see S1 veg. account for position of S1 in relation to river and ~~so~~ S1. Understory strongly limited to a few graminoids (very sparse), Equisetum, and bare mud. Some Polygonum and Astragalus also present. It amazes me how these willows survive the onslaught of river ice in early June.





[illegible]

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